National Park Service
U.S. Department of the Interior

Timucuan Ecological and Historic Preserve
Duval County, Florida

ENVIRONMENTAL ASSESSMENT

Proposed Visitor Contact Station at Cedar Point

July 2007

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Prepared for:
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100 Alabama Street
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July 2007

EXECUTIVE SUMMARY

This Draft Environmental Assessment (EA) was prepared for the National Park Service (NPS) to support a proposed project at Timucuan Ecological and Historic Preserve (TIMU) in Duval County, Florida. The National Environmental Policy Act (NEPA) of 1969 process was conducted in accordance with the NPS regulations for implementing NEPA, and it examined the consequences of this proposed project on the environment. This EA presents the alternatives considered during the NEPA process, the affected environment, the impacts associated with the proposed project, potential mitigation measures, environmental commitments, and the agency consultation and coordination conducted to support this project.

A Development Concept & Mitigation Plan Environmental Assessment (DCP/EA) was prepared in March 1997 by the NPS for the development of the Cedar Point area including development of visitor related facilities (NPS 1997a). Some of the components of the 1997 DCP/EA have been utilized and will be implemented, such as the planned upcoming boat ramp repairs, pedestrian bridge construction, and trail network; however, recent archaeological investigations have shown significant prehistoric and historical archaeological resources in the vicinity of the proposed location as presented in the 1997 DCP/EA. Therefore, the Visitor Contact Station (VCS) needs to be relocated to another location. The NPS is preparing this EA to evaluate alternative locations for the following program elements:

- Construction of a VCS,
- Construction of a trailer pad,
- Construction of a supporting access road,
- Construction of a supporting parking area,
- Construction of a supporting wastewater treatment system, and
- Construction of a trail network connecting to the trails/bridge identified in the 1997 DCP/EA.

A Value Analysis (VA) process was conducted in March 2006 for the Cedar Point Visitor Facilities at TIMU (NPS 2006e). The purpose of the VA was to continue the design process as it relates to the VCS and to address the relocation of the VCS from the proposed site at the end of the Cedar Point Road.

Three sites were evaluated during the VA process:

Site 1 - Northeastern boundary of the Cedar Point area near Cedar Point Road,
Site 2 - Shifting the 1997 DCP/EA preferred location westward approximately 500 feet, and
Site 3 - West side of the Cedar Point area adjacent to Pumpkin Hill Creek.

The VA process concluded that Site 3 was the best location for the VCS of the three locations evaluated. This location was selected because it avoids archaeological resources, offers significant views of the water, has the least walking distance to the

pedestrian bridge which offers the best opportunity to strengthen the partnership with the City of Jacksonville, and offers the best opportunity for financial return to a concessionaire partner. Therefore, this alternative location (Site 3) was carried forward in this EA as the West Site Alternative.

In addition to the West Site Alternative, the 1997 DCP/EA preferred location alternative (referred to as the "East Site Alternative" throughout this document), and the No Action Alternative were also evaluated in this EA. The potential duration of the impacts (short-term or long-term), the intensity of the impacts (negligible, minor, moderate, or major), and the classification of the impacts as beneficial or adverse were analyzed in detail for this project. Cumulative effects were also considered. By comparing the proposed project with other alternatives, and identifying mitigation measures that would minimize adverse effects, this EA assists in the decision-making process.

The proposed project would compliment the remaining program elements of the 1997 DCP/EA/FONSI providing benefits to visitors such as increased recreational opportunities, interpretation of the Cedar Point area, and accessibility of people with disabilities. Comparisons of the Preferred Alternative (West Site) and East Site Alternative result in similar resource impacts for the two alternatives, except for impacts to archeological sites. The construction phase of the VCS would result in short-term, minor, adverse effects to soils, air quality, noise, water quality, vegetation, terrestrial and aquatic wildlife, coastal zone, recreation, and aesthetics. In the long-term, minor, adverse impacts to the floodplain, noise, air quality, and energy/water use would result regardless of the alternative. The East Site Alternative would cause long-term, major, adverse impacts to the archaeological and historical resources at TIMU. No direct adverse or beneficial impacts are expected to effect threatened and endangered species, designated natural areas, ecologically critical areas, or public health and safety.

Under the No Action Alternative, there would be no adverse impacts to the resources discussed previously. Many benefits to the park would never be realized under the No Action Alternative.

Overall, none of the alternatives, including the No Action would cause impairment to park resources. Furthermore, this project would not have a cumulative effect on the natural, physical, or human environment in the vicinity of the proposed project area when considered along with other past, present, and reasonably foreseeable future actions in the region.

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LIST OF ACRONYMS

ADA	Americans With Disabilities Act
AIWA	Atlantic Intercoastal Waterway Association
BMPs	Best Management Practices
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon Monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
DACS	Department of Agriculture and Consumer Services
DCP	Development Concept Plan
DO	Director's Order
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
ERP	Environmental Resource Permitting
ESA	Endangered Species Act
F.A.C.	Florida Administrative Code
FCMP	Florida Coastal Management Program
FDEP	Florida Department of Environmental Protection
FFGC	Florida Fish and Game Commission
FMNH	Florida Museum of Natural History
FONSI	Finding of No Significant Impact
FWCC	Fish and Wildlife Conservation Commission
ICW	Intercoastal Waterway
JEA	Jacksonville Electric Authority
MOA	Memorandum of Agreement
MSL	Mean Sea Level

LIST OF ACRONYMS (continued)

NAAQS	National Ambient Air Quality Standards
NCB	Northern Coastal Basin
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NO_X	Nitrogen Oxides
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRSJRMAP	Nassau River-St.Johns River Marshes Aquatic Preserve
NWI	National Wetlands Inventory
O_3	Ozone
Pb	Lead
PM_{10}	Particulate Matter Less Than 10 μm^3
RV	Recreational Vehicle
SJRWMD	St. Johns River Water Management District
SHPO	State Historic Preservation Office
SO_2	Sulfur Dioxide
SOF	Statement of Findings
STORET	STOrage and RETrieval Database (Water Quality)
T&E	Threatened and Endangered
TIMU	Timucuan Ecological and Historic Preserve
U.S.C.	United States Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VCS	Visitor Contact Station
VOC	Volatile Organic Compound
WSR	Wild and Scenic Rivers

1.0 PURPOSE AND NEED

1.1 INTRODUCTION

The National Park Service (NPS) is preparing this Environmental Assessment (EA) to consider the environmental consequences related to the potential construction and operation of a Visitor Contact Station (VCS) at Cedar Point in the Timucuan Ecological and Historic Preserve (TIMU).

1.2 PROJECT LOCATION

Timucuan Ecological and Historic Preserve is located in Duval County in the city of Jacksonville of northeastern Florida (Figure 1-1). The preserve is a 46,000 acre river valley formed by the Nassau River to the north and the St. John's River to the south. These two rivers flow into the Atlantic Ocean located directly east of the preserve. The NPS currently owns approximately 8,350 acres within the preserve boundaries. Cedar Point is located on the south end of Black Hammock Island, consisting of approximately 400 acres (Figure 1-1).

1.3 PROJECT BACKGROUND

A Development Concept & Mitigation Plan Environmental Assessment (DCP/EA) was prepared in March 1997 by the NPS for the development of the Cedar Point area including limited development of visitor related facilities (NPS 1997a). In addition to the DCP/EA, a Statement of Findings (SOF) for Executive Order (EO) 11988 Floodplain Management and EO 11990 Protection of Wetlands was prepared and signed in 1997 for the DCP/EA because the project area was within a 100-yr floodplain and wetlands (NPS 1997b). A Finding of No Significant Impact (FONSI) was signed in 1997 determining that the proposed project was not a major federal action significantly affecting the quality of the human environment (NPS 1997c).

Some of the components of the 1997 DCP/EA have been utilized and will be implemented, such as the planned upcoming boat ramp repairs, pedestrian bridge construction, and trail network; however, recent archaeological investigations in August 2005 have shown significant prehistoric and historical archaeological resources in the vicinity of the proposed location of the VCS buildings presented in the 1997 DCP/EA. Due to these new archaeological finds the VCS needs to be relocated to another location. Therefore, the NPS is preparing this EA to evaluate alternative locations for the following program elements:

- Construction of a VCS,
- Construction of a trailer pad,
- Construction of a supporting access road,
- Construction of a supporting parking area,
- Construction of a supporting wastewater treatment system, and

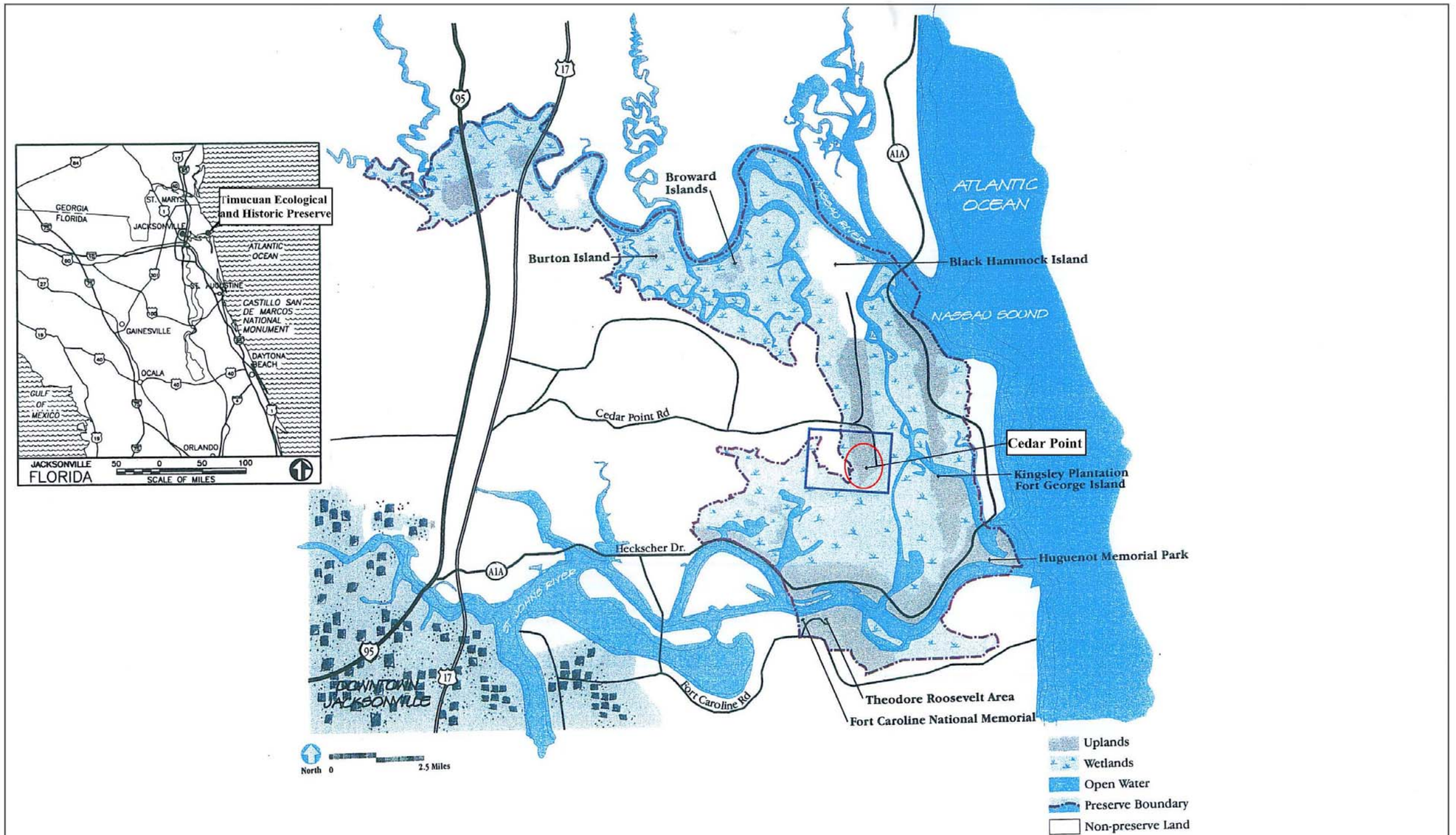

Figure 1-1 Location of Timucuan Ecological and Historic Preserve and Cedar Point

- Construction of a trail network connecting to the trails/bridge identified in the 1997 DCP/EA.

1.3.1 Value Analysis Process

A Value Analysis (VA) process was conducted in March 2006 for the Cedar Point Visitor Facilities at TIMU (NPS 2006a). Participants included representatives from TIMU, Denver Service Center (DSC), GWWO Inc. (Design Architect firm), and the Southeast Regional Office (SERO). The purpose of the VA was to continue the design process as it relates to the VCS and to address the relocation of the VCS from the proposed site at the end of the Cedar Point Road.

Three sites were evaluated during the VA process:

Site 1 - Northeastern boundary of the Cedar Point area near Cedar Point Road,
Site 2 – Shifting of the 1997 DCP/EA preferred location westward 500 feet, and
Site 3 - West side of the Cedar Point area adjacent to Pumpkin Hill Creek.

Criteria for the selection of the new location for the VCS at Cedar Point included: VCS as a destination, visibility, recreational opportunities, access to boat ramp, security, users, VCS as a hub, wayfinding system, connectivity to city land, seamless, restroom facilities, concession location, maintenance equipment, trailer/RV pad, and definition of park entry. Factors considered in the VA process included: wetlands, archaeology, utilities, cost, Master Plan interface, flood zone, and environmental enhancement. Overall, the three sites evaluated in the VA process were similar in respect to environmental impacts and concerns. After the factors were rated and scored for each location, Site 3 scored the highest or best of the three locations. Factors that contributed to this location scoring the highest included aesthetics, proximately to resource, proximately to trails, proximately to pedestrian bridge, no impacts to archeological sites, concession location, separation from power boats, visitor viewing, interpretative opportunities, concession attractiveness, and strengthening of the city partnership.

Site 2 scored low for concession attractiveness, impacts to archeological sites, and separation from power boats. This site had positive scores for aesthetics, proximately to resource, proximately to trails, and utility runs. The remaining site, Site 1, scored low for concession attractiveness, concession location, visitor viewing, and separation from power boats. This site had positive scores for identity of buildings, access, utility runs, and impact to natural resources.

In conclusion, the VA process determined that Site 3 is the preferred site since it avoids archaeological resources, offers significant views of the water, has the least walking distance to the pedestrian bridge which offers the best opportunity to strengthen the partnership with the City of Jacksonville, and offers the best opportunity for financial return to a concessionaire partner. Therefore, this alternative location was carried forward in this EA as the West Site Alternative.

1.4 PURPOSE AND NEED OF THE PROJECT

The purpose of this project is to evaluate alternative locations for a VCS in the Cedar Point area of TIMU since the proposed location as presented in the 1997 DCP/EA is no longer feasible due to the discovery of significant prehistoric and historical archaeological resources at that location.

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations, 40 CFR Parts 1500-1508; National Park Service Director's Order #12 and Handbook, *Conservation Planning, Environmental Impact Analysis, and Decision-making;* and Section 106 of the National Historic Preservation Act of 1966 as amended, and implementing regulations, 36 CFR Part 800. The intent of this document is to comply with the requirements of Section 106 of the National Historic Preservation Act (NHPA) of 1969, as amended (36 Code of Federal Regulations (CFR) Part 800.8).

As stated in the 1997 DCP/EA, Cedar Point has the potential to become a popular and heavily used area within the park, however the area does not host facilities to meet the Park's needs. Cedar Point currently lacks all basic visitor and resource protection facilities. The proposed action would provide access into the area and increase recreation throughout the Cedar Point area. A VCS would enhance the visitor experience and interpretation of Cedar Point. Additionally, having a park presence in this area would increase the security of the Cedar Point area. The proposed action would also strengthen the cooperative agreement between the NPS and the City of Jacksonville.

1.5 TIMUCUAN ECOLOGICAL AND HISTORIC PRESERVE

In 1988 Congress created Timucuan Ecological and Historical Preserve as part of the National Park System. TIMU was created to "preserve certain wetlands and historic and prehistoric sites in the St. Johns River Valley" and to protect the many cultural resources present at the park.

Approximately three-quarters of the park consist of inland waterways and wetlands that form an estuarine system of salt marsh, coastal hammock, and marine and brackish waters. The park is bounded by the Atlantic Ocean and Little Talbot Island to the east, the Nassau River in the north, and the St. John's River in the south. Pearson Island, Fanning Island, and the northern portion of Black Hammock Island are three small areas in the park that are heavily developed. These areas within the park boundary are not considered part of the preserve.

The Preserve contains over 200 archeological sites that date back 6,000 years and many historical structures. Some of the historic sites which attract visitors year round include the Fort Caroline National Memorial and the Kingsley Plantation complex.

TIMU is named after the early Native American settlers that lived within the St. John's estuary prior to the arrival of the European settlers in the 1500's. The Timucua represent a number of linguistically related Native American tribes who first encountered the European settlers. The Timucua offered food and helped the French build their first fort – Fort de la Caroline. The Spanish defeated the French in 1565, bringing their own culture and spiritual beliefs to the area. By 1698, the Timucua population had been depleted from 10,000 to approximately 550. Today, there are no known indigenous Timucua remaining in existence.

Cedar Point

Cedar Point, located at the south end of Black Hammock Island, is one of the last undeveloped upland areas found in TIMU. The City of Jacksonville acquired lands immediately west of Cedar Point across Pumpkin Hill Creek prior to the NPS acquisition of the land in 1996. The NPS and City of Jacksonville have joined in a cooperative partnership for planning and development of the two parcels of land. The City of Jacksonville property would contain interpretive trails and a wildlife viewing platform. The NPS property would contain visitor support facilities including restrooms, parking areas, concessionaire and interpretive information as well as additional recreational facilities (i.e., hiking trails and boat ramp).

Cedar Point includes approximately 400 acres of oak hammock, pine flatlands and planted pines that have been previously harvested. There is an existing boat ramp located on the eastern portion of the site that has been there for over 40 years. Traditionally, Cedar Point provided activities such as boating, fishing, hiking, bicycling, and bird watching to visitors. In addition to these activities numerous cultural resources, including many archaeological sites have been found.

1.6 SCOPE OF THE ENVIRONMENTAL ASSESSMENT

This EA was prepared in accordance with National Environmental Policy Act (NEPA) guidelines, and it examines the consequences of a proposed action and alternatives on the environment. This document analyzes the short-term, long-term, and cumulative effects of the proposed action for the VCS, along with one other alternative and the "no action alternative." By comparing the proposed action with other alternatives, identifying an environmentally preferred alternative, and identifying mitigation measures that would minimize adverse effects, this EA will assist stakeholders in the decision-making process.

1.7 ORGANIZATION OF THE ENVIRONMENTAL ASSESSMENT

Chapter 1 discusses the location and background of the project, the history of TIMU, the purpose and need of the project, and the scope of the EA (these topics were previously discussed in Sections 1.1 through 1.6), organization of the EA (current section being discussed – Section 1.7), impact topics considered, evaluated, and dismissed (Section 1.8), and applicable statutory and regulatory requirements (Section 1.9). Chapter 2 discusses the preferred alternative for the VCS (west site), the east site, the no action

alternative, and the environmentally preferred alternative. Chapter 3 describes the affected environment and discusses the physical, natural, socio-economic, and cultural resources in relation to the alternatives. Chapter 4 presents the environmental consequences for the described alternatives (preferred, East Site, and no action) for the VCS to physical, natural, socio-economic, and cultural resources. Chapter 5 discusses the mitigation measures that would minimize any adverse impacts. Chapter 6 describes the environmental commitments including the unavoidable adverse impacts and irreversible or irretrievable commitments of resources. Chapter 7 discusses the public involvement and scoping process that occurred throughout the NEPA process, and agency consultation and coordination. Chapter 8 is the list of document preparers and is followed by a list of document references (Chapter 9) and appendices.

1.8 IMPACT TOPICS AND ISSUES

Issues can be defined as the relationship between the alternatives and the human, physical, and natural environment (NPS 2001). Issues are used to define which environmental resources may experience either negative or beneficial consequences from an action. They do not predict the degree or intensity of potential consequences that might result from an action. Issues were identified by the NPS, local and Federal agencies, and by the public during the scoping process. For more information, see Chapter 7 on Public and Agency Involvement and Consultation and Coordination. From these issues, impact topics were developed for each affected environmental resource area. Impact topics are used to define and focus the discussion of resources that could be affected by the alternatives, and are the focus in the evaluation of the potential environmental consequences of the alternatives.

Potential impact topics were identified based on legislative requirements, executive orders, topics in *Director's Order #12 and Handbook* (NPS 2001), NPS *Management Policies* (NPS 2006b), guidance from NPS, input from other agencies, public concerns, and resource information specific to Timucuan Ecological and Historic Preserve. A summary of impact topics analyzed and dismissed from further analysis is provided below, along with the rationale for their inclusion or dismissal.

1.8.1 Impacts Topics Evaluated in Detail

Soils – Soil disturbance during construction of the VCS is expected to have implications for this resource.

Air-quality – During the short-term construction phase of the project, the operation of construction equipment is expected to generate some criteria pollutant emissions, including carbon monoxide and particulate matter.

Noise – The construction phase of this project is expected to create minor and short-term noise impacts at the site.

Water Resources – The construction of the VCS adjacent to the estuary may temporarily impact the water quality and hydrology of the area.

Floodplains – The proposed action is located within the 100-yr floodplain.

Coastal Zone – The proposed action is located within a coastal zone.

Wetlands – The proposed action is located in the vicinity of identified wetland areas.

Aquatic Resources – Aquatic wildlife in the vicinity of the proposed action has the potential to be disturbed during construction activities.

Terrestrial Resources – Vegetation and wildlife habitat at this site is expected to be disturbed during construction activities.

Threatened and Endangered Species – Protected species occur within the park. This environmental document will serve as the basis for appropriate consultation with the agencies charged with protecting listed species.

Ecologically Critical Areas – All waters within the preserve are designated as critical area for the West-Indian manatee.

Designated Natural Areas – TIMU lies within the Nassau River–St. Johns River Marshes Aquatic Preserve (NRSJRMAP).

Cultural Resources – TIMU is home to several known historically and archaeologically significant sites.

Recreation – The construction of the site may temporarily affect local recreational activities.

Environmental Justice – Environmental justice was retained to analyze the presence of minority and low-income populations in the vicinity of the project area.

Aesthetics – Aesthetics of the site are expected to be temporarily altered during construction.

Public Health and Safety – The proposed action may potentially improve public safety at the site.

Energy Requirements and Conservation – The proposed action is expected to require energy use during the construction phase as well as the implementation of the VCS.

Infrastructure – Infrastructure proposed for the VCS includes electricity, telecommunications, and road structure.

Visitor Use and Experience – The proposed action may cause minor alterations to visitor experience during the construction phase of the project.

Park Operations – Operations at Cedar Point may be temporarily impacted during the construction of the proposed action.

1.8.2 Impact Topics Dismissed from Further Analysis

Geology – Cedar Point located on the Black Hammock Island lies within the Sea Island physiographic district of Florida. The coastal island consists of relic beach ridges and erosional remnants formed during the Peistocene and early Halocene times. Typically elevations range from mean sea level (msl) to 5-feet above mean sea level. There are some areas within the island that are up to 15-feet in elevation. The proposed action and alternatives would not affect the geology of the site.

Topography - The topography of TIMU is characterized by nearly level to gently sloping terrain. The proposed action and alternatives would not affect the topography of the site, as no extensive grading is needed.

Coastal Barriers – The Talbot Island Complex (Talbot Island and Little Talbot Island) is the only barrier island located in Duval County. This coastal barrier falls within the eastern region of the TIMU boundary. Cedar Point is not part of this coastal barrier island.

Prime and Unique Farmlands – There are no soils in Duval County that meet the criteria of prime or unique farmland.

Wild and Scenic Rivers – There are no designated wild and scenic rivers within the park as defined in the Wild and Scenic Rivers (WSR) Act (16 U.S.C. 1271-1287). Additionally, no study rivers defined as "designated for potential addition to the national wild and scenic rivers system" by the WSR Act are located within the vicinity of TIMU (NPS 2006c).

Land Use – Most of the land within the boundaries of the park is considered a marsh or estuary. The upland portions of the preserve are owned by federal (NPS), state, and private residents. Land use within the NPS lands is for recreation and ecological and historical preservation. The northern portion of Black Hammock Island is residential in use. Implementing the proposed project would not conflict with the current land use plans for the park.

Hazardous, Toxic, and Radioactive Substances – There are no hazardous, toxic, or radioactive substances involved with the proposed action or alternatives.

Socioeconomic Resources – The proposed action would not affect resources outside the park boundaries, such as demographics, economy, housing, or land use. A minor

temporary increase in jobs may occur during construction; however this would be a negligible impact on local socioeconomic conditions.

Indian Sacred Sites and Indian trust Resources – According to the Bureau of Indian Affairs, there are no Indian Sacred Sites or Indian Trust Resources in the vicinity of the Cedar Point area within TIMU.

1.9 APPLICABLE LAWS AND REGULATIONS

Applicable Federal policies, executive orders and regulations are listed in Table 1-1 below, and how they relate to each resource that was originally considered. In addition, NPS *Management Policies* (NPS 2006b) was used for guidance for numerous impact topics. Other regulations specific to NPS include the Director's Orders listed below, and NPS Organic Act of 1916.

Table 1-1. Applicable Federal Laws and Regulations

Resource	Relevant Laws and Regulations
Soils, Geology, Topography	National Cooperative Soil Survey Standards
Air Quality	Clean Air Act NPS Organic Act
Noise	Director's Order #47 Noise Control Act
Water Quality, Hydrology	Clean Water Act Rivers and Harbors Appropriation Act Executive Order 12088
Floodplains	Executive Order 11988 Director's Order #77-2
Coastal Barriers	Coastal Barrier Resources Act
Coastal Zone Management	Coastal Zone Management Act
Wetlands	Executive Order 11990 Clean Water Act Executive Order 12088 Director's Order #77-1 Rivers and Harbors Appropriation Act
Terrestrial Resources	Migratory Bird Treaty Act Wilderness Act Executive Order 13112
Aquatic Resources	Magnusun-Stevens Fishery Conservation and Management Act Marine Mammal Protection Act
Threatened and Endangered Species	Endangered Species Act NPS Organic Act
Ecologically Critical Areas	Endangered Species Act
Wild and Scenic Rivers	Wild and Scenic Rivers Act Director's Order #46
Prime and Unique Farmlands	Farmland Protection Policy Act

Resource	Relevant Laws and Regulations
	Memorandum on Prime and Unique Agricultural Lands and NEPA (CEQ 1980)
Cultural, Historic, and Archaeological Resources	National Historic Preservation Act Archaeological Resources Protection Act Director's Order #28 NPS Organic Act
Indian Sacred Sites and Indian Trust Resources	DOI Secretarial Orders No. 3206, 3175 Director's Orders #66 and #71B Executive Orders 13007, 13175
Socioeconomic Resources	Director's Orders #2 and #12
Environmental Justice	Executive Order 12898
Aesthetics	NPS Organic Act
Public Health and Safety	Architectural Barriers Act Americans with Disabilities Act (ADA) Director's Orders #42 and #83 Executive Order 13045
Energy Requirements and Conservation	Energy Policy Act Executive Orders 13031, 13123, 13149
Visitor Experience and Experience	NPS Organic Act Director's Order #12
Park Operations	NPS Organic Act

1.10 REQUIRED PERMITS AND CERTIFICATIONS

Various permits are required for the proposed project, including a Coastal Zone Consistency Certification and permits for wells, septic tanks, etc. See Sections 3.3.1 and 4.3.1 for more information on the Coastal Zone Consistency. Necessary permits would be obtained during the construction phase

2.0 DESCRIPTION OF ALTERNATIVES

This chapter provides a description of the No Action Alternative, the Preferred Alternative (West Site), the East Site Alternative, the Environmentally Preferred Alternative, and alternatives considered but dismissed.

2.1 NO ACTION ALTERNATIVE

The No Action Alternative is required for the NEPA process to review and compare all feasible alternatives to the existing baseline conditions. Under the No Action Alternative, a VCS would not be constructed in the Cedar Point area of the park. Without the VCS there would be limited recreational use of the area and visitors would not have adequate access or interpretation of the area. The proposed cooperative agreement between the NPS and City of Jacksonville would not be fulfilled, since there would be no access onto the city trail system from Cedar Point.

2.2 PREFERRED ALTERNATIVE (WEST SITE)

The proposed West Site Alternative would be located on the western boundary of Cedar Point adjacent to Pumpkin Hill Creek (Figure 2-1). It would consist of a VCS, trailer pad, supporting Access Road, parking area, supporting wastewater treatment system, and a trail network (Figure 2-2). The VCS would have three different functions, including a NPS interpretive area and office, a concessionaire area, and visitor restrooms. The VCS would be approximately 2,824 square feet (NPS 2006d). The facility would represent the Cracker style, dog-trot homes which were scattered across northern Florida in the 1800's. The VCS would include a large front covered porch and elevated deck. The VCS would be elevated to protect against the 100 year flooding. There would be two 50 foot ramps located at the rear and front entrances to allow wheelchair access.

The NPS office and interpretive area of the VCS would include an information desk, interpretive area, office/work area, and an administrative storage area. The restroom facility would include a men's and women's restrooms, storage area, and mechanical/electrical room. The concessionaire area would include a sales desk and limited storage area for the purpose of renting kayaks, canoes, and bikes to visitors. A NPS equipment storage building would be located in the vicinity of the VCS. NPS employees would access the storage facility by trails leading from the VCS. The storage facility would include space for one work vehicle and small equipment.

The VCS would be situated at the end of an Access Road off of Cedar Point Road (Figure 2-2). The Access Road would be approximately 3,800 feet in length. A parking lot for 36 vehicles, including two spaces with ADA requirements is proposed. A bus drop off/pick-up area would be located near the VCS and three bus/recreational vehicle (RV) parking spaces would be located at the east end of the site with access to the bus drop-off/pick-up area. A traffic circle near the drop-off would allow waiting buses to pull out of the way for other loading or unloading buses. The surface of the parking area would include permeable, no-fines asphalt or permeable, natural substrate (i.e. crushed shells).

Figure 2-1 Location of the East and West Site Alternatives in Timucuan Ecological and Historic Preserve

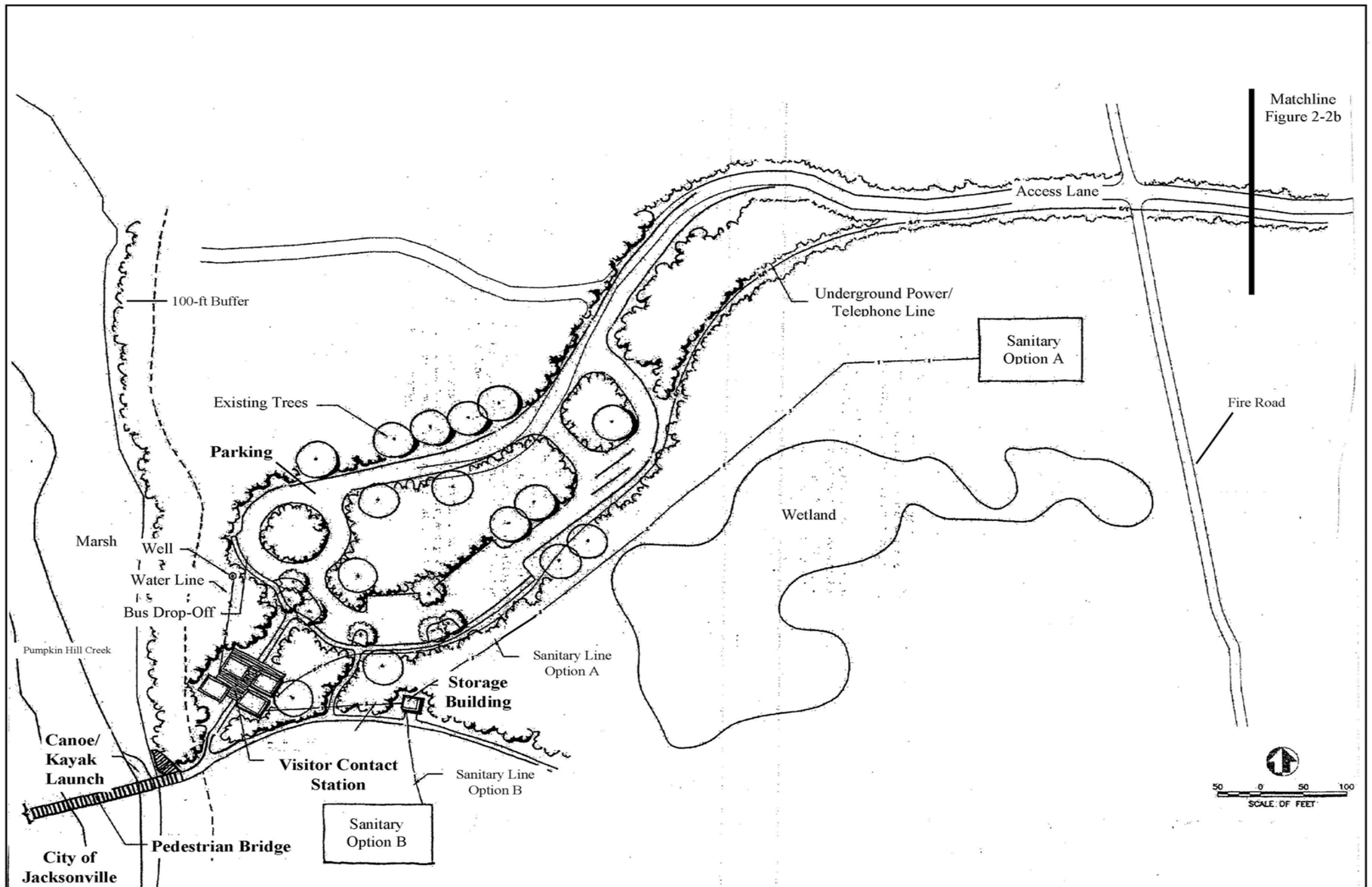

Figure 2-2a Site Plan for the Visitor Contact Station at the West Site Alternative, Timucuan Ecological and Historic Preserve

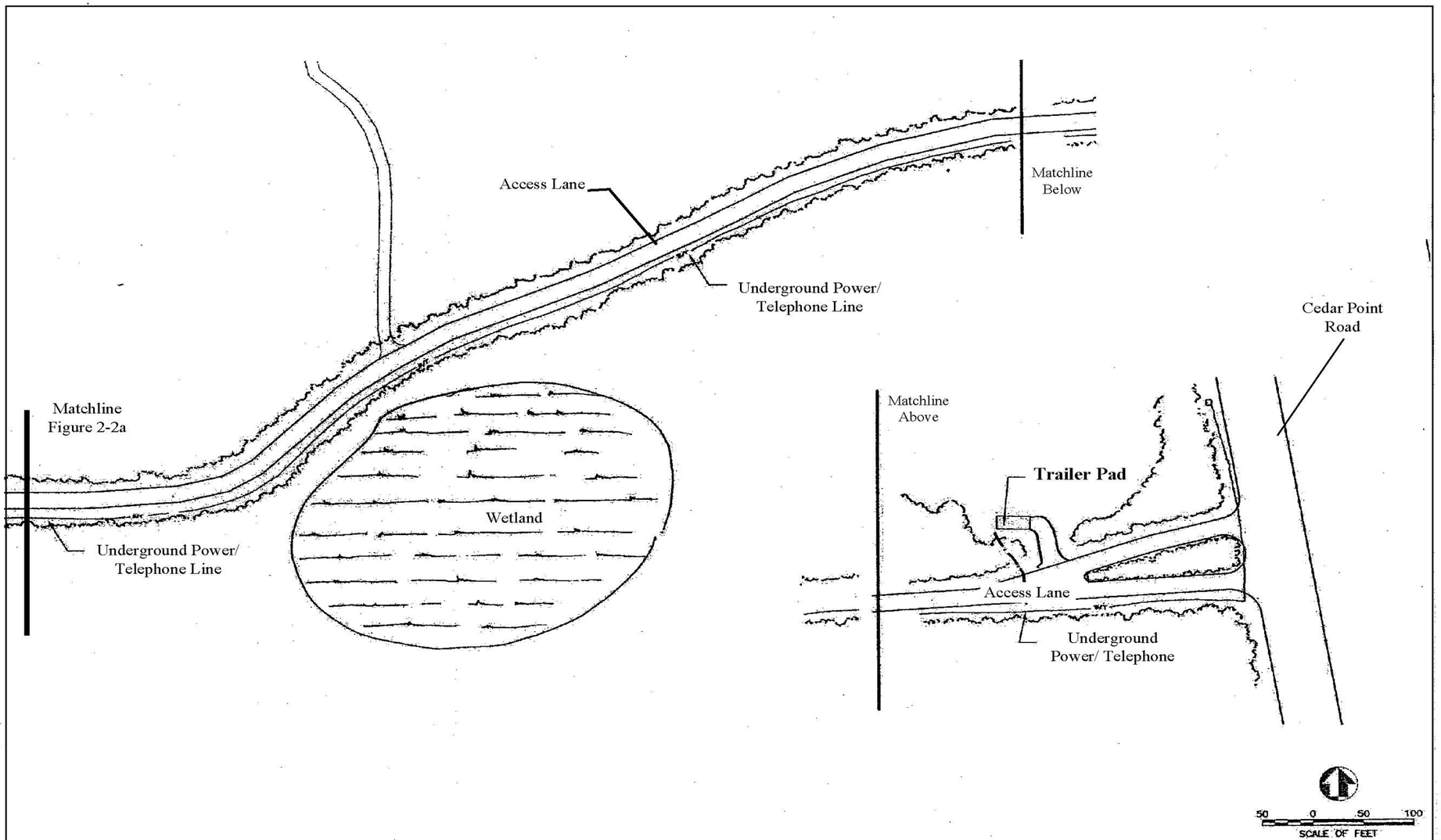

Figure 2-2b Site Plan for the Visitor Contact Station, West Site Alternative, Timucuan Ecological and Historic Preserve

The trailer pad for security personnel would be located on the Access Lane near the intersection with Cedar Point Road. The trail network would connect the parking area to the VCS and to the pedestrian bridge (the pedestrian bridge is a component of the 1997 EA/DCP project).

Utilities including electric and telecommunications would be extended underground within the clearing limits of the Access Road to the VCS site. Transformers and boxes on the surface would be located behind the scrub area and out of the visitor's site. A well would be drilled north of the VCS to serve as the domestic water source for the VCS. A water treatment facility would also be constructed. Sanitary waste would be treated on site with a sanitary treatment mound system or performance-based treatment system. Stormwater management techniques would be developed in the design phase of the project to minimize impacts to surface water quality.

2.3 EAST SITE ALTERNATIVE

The East Site Alternative was the preferred alternative location presented in the 1997 DCP/EA. This alternative proposed that the VCS would be located on the eastern point of Cedar Point at the southern terminus of the Cedar Point Road (Figure 2-1). The VCS would be accessed via Cedar Point Road. The VCS would be approximately 1,625 square feet and include visitor information, NPS office, concessionaire/office, storage facilities, storage area, and visitor restrooms (Figure 2-3). A parking area holding up to 40 vehicles would be constructed in a disturbed area at the end of the existing roadway. The surface of the parking area would include permeable, no-fines asphalt or permeable, natural substrate (i.e. crushed shells).

The VCS would be constructed in a previously developed area. Utility services would include telecommunications and electrical service. Electrical needs would be from an existing electrical service. Water service would be from a well that would need to be installed at the site. A drainfield or sewage treatment facility and a water treatment facility would be required and located in a previously disturbed area. Stormwater management techniques would be developed in the design phase of the project.

2.4 ENVIRONMENTALLY PREFERRED ALTERNATIVE

The environmentally preferred alternative is determined by applying the criteria from Section 2.7 (D) of NPS Director's Order (DO) 12. These are the same criteria outlined in NEPA, which is guided by the Council on Environmental Quality (CEQ) regulations. CEQ regulations provide direction that "the environmentally preferable alternative is the alternative that will best promote the national environmental policy as expressed in Section 101(b) of NEPA." Generally, this means the alternative that causes the least damage to the biological and physical environment. It also means the alternative that best protects, preserves, and enhances historic, cultural and natural resources.

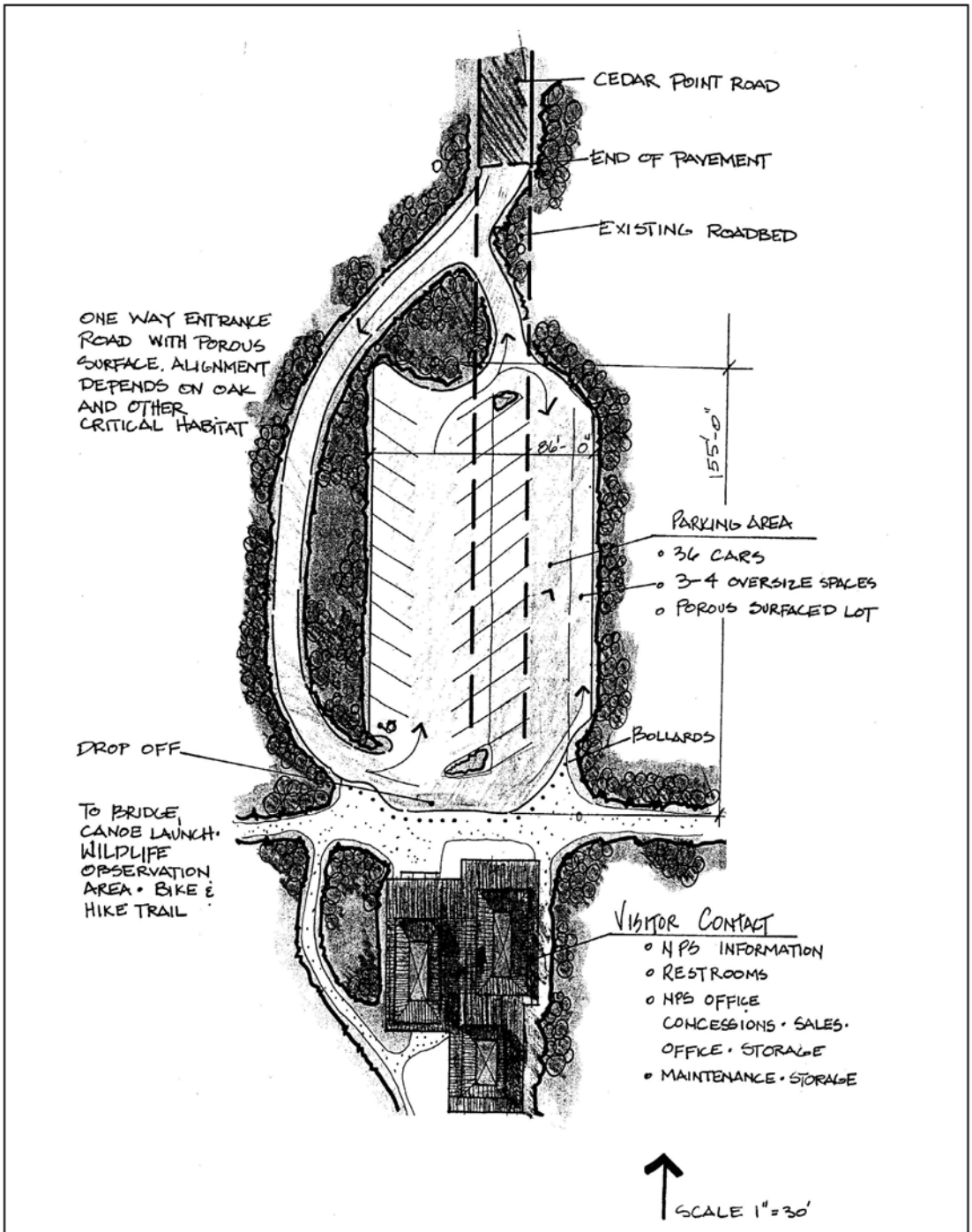

Figure 2-3 Site Plan for the Visitor Contact Station at the East Site Alternative, Timucuan Ecological and Historic Preserve

Consistency with Section 101(b) of NEPA

NPS policy requires the identification of an environmentally preferred alternative to aid NPS decision-makers in choosing among the alternatives. The environmentally preferred alternative is the alternative that will promote the national environmental policy as expressed by NEPA. This includes alternatives that meet the six goal statements of Section 101(b) of NEPA, which are listed in Table 2-1. A summary of the alternatives and whether each would meet the goal statements is also presented in Table 2-1.

Table 2-1. Selection of the Environmentally Preferred Alternative

NEPA GOAL STATEMENT	WEST SITE	EAST SITE	NO ACTION
(1) Fulfill the responsibilities of each generation as trustee of the environment for succeeding generations.	Contributes toward meeting this goal.	Contributes toward meeting this goal.	Interferes with achieving this goal.
(2) Assure for all generations safe, healthful, productive, and aesthetically and culturally pleasing surroundings.	Contributes toward meeting this goal.	Contributes toward meeting this goal.	Neither contributes nor detracts from meeting this goal.
(3) Attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.	Contributes toward meeting this goal.	Contributes toward meeting this goal.	Neither contributes nor detracts from meeting this goal.
(4) Preserve important historic, cultural and natural aspects of our national heritage and maintain, wherever possible, an environment that supports diversity and variety of individual choice.	Contributes toward meeting this goal.	Interferes with achieving this goal	Neither contributes nor detracts from meeting this goal.
(5) Achieve a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities.	Neither contributes nor detracts from meeting this goal.	Neither contributes nor detracts from meeting this goal.	Neither contributes nor detracts from meeting this goal.

NEPA GOAL STATEMENT	WEST SITE	EAST SITE	NO ACTION
(6) Enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.	Neither contributes nor detracts from meeting this goal.	Neither contributes nor detracts from meeting this goal.	Neither contributes nor detracts from meeting this goal.

The No Action Alternative would not meet the management goals and objectives of this park unit. In addition, this alternative does not realize the provisions of the national environmental policy goals, as summarized in Table 2-1. Although the No Action Alternative would not create any additional disturbance, the existing conditions would continue without providing additional benefits to visitor use through the construction of a VCS.

The East Site Alternative would not meet park purposes and national environmental policy goals. The East Site Alternative would not protect the important cultural resources that may exist at this site.

The West Site Alternative would meet park purposes and national environmental policy goals by protecting important cultural resources. Thus, the West Site Alternative is the environmentally preferred alternative because it would be providing protection to historic and archaeological resources for which the park was established.

2.5 ALTERNATIVES CONSIDERED BUT DISMISSED

The Value Analysis (VA) process conducted in March 2006 evaluated three site locations for the proposed Cedar Point Visitor Facilities at TIMU (NPS 2006a). These site locations included:

Site 1 - Northeastern boundary of the Cedar Point area near Cedar Point Road,
Site 2 - West of the 1997 DCP/EA preferred location, and
Site 3 - West side of the Cedar Point area adjacent to Pumpkin Hill Creek.

Criteria for the selection of the location for the VCS at Cedar Point included: VCS as a destination, visibility, recreational opportunities, access to boat ramp, security, users, VCS as a hub, wayfinding system, connectivity to city land, seamless, restroom facilities, concession location, maintenance equipment, trailer/RV pad, and definition of park entry. Factors considered in the process included: wetlands, archaeology, utilities, cost, Master Plan interface, flood zone, and environmental enhancement. Based on the ratings of these factors, Site 3 scored the highest. Positive factors for this site included aesthetics, proximately to resource, proximately to trails, proximately to pedestrian bridge, concession location, separation from power boats, visitor viewing, interpretative opportunities, concession attractiveness, and city partnership strengthening. Overall, this location was selected because it avoids archaeological resources, offers significant views of the water, has the least walking distance to the pedestrian bridge which offers the best

opportunity to strengthen the partnership with the City of Jacksonville, and offers the best opportunity for financial return to a concessionaire partner.

Site 2 scored low for concession attractiveness and separation from power boats. However, this location did have positive scores for aesthetics, proximately to resource, proximately to trails, and utility runs. The remaining location, Site 1, scored low for concession attractiveness, concession location, visitor viewing, separation from power boats, and additional parking at ramp. However, this location had positive scores for access, utility runs, and impact to natural resources.

Therefore, based on the results of the sites evaluated in VA process, two alternative site locations, Site 1 (Northeastern boundary of the Cedar Point area near Cedar Point Road) and Site 2 (West of the 1997 DCP/EA preferred location) were dismissed.

2.6 COMPARISON OF ALTERNATIVES

Table 2-2 summarizes the direct and indirect impacts to the resources at TIMU for the Preferred Alternative (West Site Alternative), East Site Alternative, and the No Action Alternative.

Table 2-2. Summary of Impacts for Alternatives Considered

Resource	Preferred Alternative West Site	East Site Alternative	No Action Alternative
Soils	- Short-term, minor, adverse impacts from soil disturbance during construction.	- Short-term, minor, adverse impacts from soil disturbance during construction.	- No additional beneficial or adverse impacts.
Air Quality	- Short-term, minor, adverse impacts to air quality during the construction of the VCS. - Long-term, minor, adverse impacts from the operation of air conditioning and heating units for the VCS.	- Short-term, minor, adverse impacts to air quality during the construction of the VCS. - Long-term, minor, adverse impacts from the operation of air conditioning and heating units for the VCS.	- No additional beneficial or adverse impacts.
Noise	- Short-term, minor, adverse impacts during construction. - Long-term, minor, adverse impacts after the completion of the project.	- Short-term, minor, adverse impacts during construction. - Long-term, minor, adverse impacts after the completion of the project.	- No additional beneficial or adverse impacts.
Hydrology	- Long-term, negligible, adverse impacts to hydrology.	- Long-term, negligible, adverse impacts to hydrology.	- No additional beneficial or adverse impacts.

Resource	Preferred Alternative West Site	East Site Alternative	No Action Alternative
Water Quality	- Short-term, minor, adverse impacts during construction due to the clearing of vegetation. - Long-term, negligible, adverse impacts due to the implementation of the VCS.	- Short-term, minor, adverse impacts during construction due to the clearing of vegetation. - Long-term, negligible, adverse impacts due to the implementation of the VCS.	- No additional beneficial or adverse impacts.
Floodplain	- Long-term, minor, adverse impacts to the floodplain due to the construction of the VCS. A SOF for floodplains was prepared and approved (NPS 1997b).	- Long-term, minor, adverse impacts to the floodplain due to the construction of the VCS. A SOF for floodplains was prepared and approved (NPS 1997b).	- No additional beneficial or adverse impacts.
Coastal Zone	- Short-term, minor, adverse impacts during construction. - A Coastal Zone Management Act Consistency Certification will be completed by the FDEP after completion of this EA and the signing of the FONSI.	- Short-term, minor, adverse impacts during construction. - A Coastal Zone Management Act Consistency Certification will be completed by the FDEP after completion of this EA and the signing of the FONSI.	- No additional beneficial or adverse impacts.
Wetlands	- No impact	- No impact	- No additional beneficial or adverse impacts.
Vegetation	- Minor, short-term, adverse impacts due to the clearing of vegetation.	- Minor, short-term, adverse impacts due to the clearing of vegetation.	- No additional beneficial or adverse impacts.
Wildlife	- Short-term, minor, adverse impacts to wildlife during construction.	- Short-term, minor, adverse impacts to wildlife during construction.	- No additional beneficial or adverse impacts.
Aquatic Resources	- Short-term, minor, adverse impacts due to potential construction runoff.	- Short-term, minor, adverse impacts due to potential construction runoff.	- No additional beneficial or adverse impacts.
Threatened and Endangered Species	- No effects to T & E species.	- No effects to T & E species.	- No additional beneficial or adverse impacts.
Ecologically Critical Areas	- No impact.	- No impact.	- No additional beneficial or adverse impacts.
Designated Natural Areas	- No effect to designated natural areas.	- No effect to designated natural areas.	- No additional beneficial or adverse impacts.
Archaeological Resources	- No adverse effect.	- Long-term, major, adverse impacts to archaeological resources.	- No additional beneficial or adverse impacts.

Resource	Preferred Alternative West Site	East Site Alternative	No Action Alternative
Historic Resources	- No adverse effect.	- Long-term, major, adverse impacts to histories and prehistoric resources.	- No additional beneficial or adverse impacts.
Recreation	- Short-term, minor, adverse impacts to recreation during the construction phase of the project. - Long-term, moderate, beneficial impacts during the operation of the VCS.	- Short-term, minor, adverse impacts to recreation during the construction phase of the project. - Long-term, moderate, beneficial impacts during the operation of the VCS.	- Loss of benefit to recreation.
Environmental Justice	- Indirect beneficial impacts to the low-income and minority communities.	- Indirect beneficial impacts to the low-income and minority communities.	- Loss of benefit to low-income and minority communities.
Aesthetics	- Short-term, minor, adverse impacts during to aesthetics during the construction phase of the project.	- Short-term, minor, adverse impacts during to aesthetics during the construction phase of the project.	- No additional beneficial or adverse impacts.
Public Health and Safety	- Long-term, minor, beneficial impact due to the availability of restrooms at the site.	- Long-term, minor, beneficial impact due to the availability of restrooms at the site.	- Loss of restroom facility benefits.
Energy Requirements and Conservation	- Minor, long-term increases in energy and natural resources requirements would occur from the construction and implementation of the VCS.	- Minor, long-term increases in energy and natural resources requirements would occur from the construction and implementation of the VCS.	- No additional beneficial or adverse impacts.
Infrastructure	- Minor, long-term, adverse impacts to water and electrical use.	- Minor, long-term, adverse impacts to water and electrical use.	- No additional beneficial or adverse impacts.
Visitor Use and Experience	- Short-term, minor, adverse impacts to recreation during construction. - Long-term, major, beneficial impacts during the operation of the VCS.	- Short-term, minor, adverse impacts to recreation during construction. - Long-term, major, beneficial impacts during the operation of the VCS.	- Loss of benefits to visitor use and experience.
Park Operations	- Minor, short- and long-term, beneficial impacts to park operations during the operation phase of the VCS due to increased security.	- Minor, short- and long-term, beneficial impacts to park operations during the operation phase of the VCS due to increased security.	- Loss of benefits to park operations.

3.0 AFFECTED ENVIRONMENT

3.1 CHAPTER OVERVIEW

Chapter 3.0 describes the existing environmental conditions of the two proposed alternative locations, the Preferred Alternative (West Site) and the East Site Alternative at TIMU (Figure 2-1). This chapter also describes the overall general existing environmental conditions within the entire Cedar Point parcel prior to more detailed descriptions of the West and East Sites. The information in Chapter 3.0 is organized by the same environmental topics used to organize the impact analysis in Chapters 4.0. The descriptions, data, and analyses focus on the specific conditions or consequences that may result from implementing the alternatives as required by *NPS Director's Order #12 and Handbook*: *Conservation Planning, Environmental Impact Analysis, and Decision Making,* which sets forth the policy and procedures by which the NPS will comply with NEPA (NPS 2001). A detailed description of the alternatives can be found in Chapter 2.

Chapter 3.0 addresses the topics that were not dismissed from further consideration as described in Chapter 1.0. The topics are organized by physical, natural, and human environment.

3.2 PHYSICAL RESOURCES

This section discusses the physical environment at TIMU, including soils, air quality, noise, and water resources.

3.2.1 Soils

The U.S. Department of Agriculture (USDA) Natural Resource Conservation Services (NRCS) surveyed the soils at TIMU in 1998. A total of four soil types were delineated and described in the southern portion of Black Hammock Island (Cedar Point). Table 3-1 lists the soils found in these areas and their characteristics. All soils found in this area have a slope between 0 and 5% and have a sandy texture.

Table 3-1. Characteristics of Soils Present at Cedar Point

Soil Name	Landform	Natural Drainage	Slope	Parent Material
Evergreen-Wesconnett complex, depressional	Depressions/Lower Coastal Plain	Very poorly drained	0 to 2%	Decomposed organic materials underlain by thick sandy marine sediments
Hurricane and Ridgewood soils	Rises and knolls/Lower Coastal Plain	Somewhat poorly drained	0 to 5%	Sandy marine sediments
Leon fine sand	Flatwoods/Lower Coastal Plain	Poorly drained	0 to 2%	Sandy marine sediments

Soil Name	Landform	Natural Drainage	Slope	Parent Material
Pottsburg fine sand, high	Rises and knolls/Lower Coastal Plain	Somewhat poorly drained	0 to 3% slopes	Sandy marine sediments

Source: Watts 1998

Hydric soils are defined as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part of the profile. These soils are either saturated or inundated long enough to support the growth of hydrophytic vegetation (Watts 1998). Hydric soils are one of the three required criteria for a site to be characterized as a wetland. Of the four soil types that occur on Cedar Point, three soils are considered hydric soils. The hydric soils found in this area include Evergreen-Wesconnett complex, Hurricane and Ridgewood soils, and Leon fine sand.

A drained hydric soil is one in which sufficient ground or surface water has been removed by artificial means so that the area would no longer support hydrophytic vegetation. The hydric soils mapped within the Preferred Alternative (West Site) location have been disturbed due to previous silviculture practices and the hydric soils mapped within the East Site Alternative location have been previously disturbed by road construction and ditching for drainage, as well as general disturbance from fishing camp developments over the previous forty years. Due to the disturbance of these soils at both site alternatives the soils no longer function as hydric soils.

West Site: The soils types within the vicinity of the project area include Evergreen-Wesconnett complex, Hurricane and Ridgewood soils, and Leon fine sand.

East Site: Hurricane and Ridgewood soils make up the majority of the soil type for the East Site project area. The Pottsburg fine sand soils are located west of the project area.

3.2.2 Air Quality

The Federal Clean Air Act (CAA) requires all Federal agencies to comply with Federal, State, and local air pollution control laws and regulations. The United States Environmental Protection Agency (USEPA) set National Ambient Air Quality Standards (NAAQS) required by the CAA for air pollutants that cause health threats. The CAA defines six criteria pollutants. These criteria pollutants are carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with sizes less than 10 μm^3 (PM_{10}), nitrogen oxides (NO_x), ozone (O_3), and lead (Pb). Volatile organic compounds (VOC) are not criteria pollutants, but are of interest since they participate in the formation of ozone. TIMU is located in Duval County in Jacksonville, Florida. The entire state of Florida is in attainment for all six criteria pollutants (USEPA 2007).

3.2.3 Noise

Current noise sources in the park are predominately the result of human activities such as traffic from the local roadways, recreation (hiking, biking, and fishing), and boating activities. A secondary source of sound in the park is natural and includes birds and wildlife.

3.2.4 Water Resources

3.2.4.1 Hydrology

TIMU is bounded by the Nassau River in the north, St. Johns River in the south, and the Atlantic Ocean in the east. The preserve forms an extensive estuarine system comprised of salt marsh, coastal hammock, and marine and brackish waters. This estuarine makes up approximately 75 percent of the preserve.

The St. Johns River is the longest river in the state of Florida; its watershed comprises 9,430 square miles. The St. Johns River flows in a northerly direction from southern to northeastern Florida. The rivers drainage basin is divided into three regions. TIMU falls into the lower drainage basin, which is the area in Northeast Florida from Putnam County to the river's mouth in Duval County.

Cedar Point is located on Black Hammock Island. The island is surrounded by the Nassau River to the north, Sisters Creek and Horseshoe Creek to the east, Cedar Point Creek to the south, and Pumpkin Hill Creek to the west. The surface waters surrounding Cedar Point have been designated for special protection by the establishment of the Timucuan Ecological and Historic Preserve, the Nassau River-St. Johns River Marshes Aquatic Preserve and a City of Jacksonville Special Management Area.

The Atlantic Intracoastal Waterway (ICW) is a series of federally maintained navigation channels along the southeastern seaboard of the U.S. that extends from Norfolk, Virginia to Miami, Florida. The 1200-mile course includes manmade canals, bays protected by barrier islands, natural river channels, and estuaries. The ICW is located just east of Cedar Point along Sisters Creek. The ICW connects the Nassau and St. Johns River.

3.2.4.2 Water Quality

TIMU is located in the Northern Coastal Basin (NCB) of St. Johns River Water Management District (SJRWMD). SJRWMD established the surface water quality monitoring program in 1983 that maintains water quality monitoring of approximately 73 stations throughout the district. This program also monitors sediments for priority pollutants and benthic community sampling. The data generated under the program are uploaded to the USEPA National Water Quality Storage and Retrieval Database (STORET). At the regional level, Florida Department of Environmental Protection (DEP) and SJRWMD are the two main agencies involved in surface water permitting procedures.

The Clean Water Act (CWA) requires that surface waters be classified according to Florida's designated uses. The Florida Administrative Code (F.A.C.) applies classifications, criteria, an anti-degradation policy, and special protection of certain waters in Florida (FDEP 2006a). Water quality classifications are arranged in order of the degree of protection required, with Class I water having the most stringent water quality criteria and Class V the least. These classifications are designed to maintain the minimum conditions necessary to assure the suitability of water for the designated use of the classification. The St. Johns River is classified as Class III, which means that it is intended use is for recreation, propagation, and maintenance of a healthy, well-balanced population of fish and wildlife. The area of salt marshes and estuarine waters between the St. Johns River and Nassau River, including the waters surrounding Cedar Point, are designated as Class II waters, which is defined as "Shellfish Propagation or Harvesting." Criteria for surface water quality classifications can be found 62-302-530 of the F.A.C (FDEP 2006b). All water within the preserve has been designated by the FDEP as Outstanding Florida Waters with stringent water quality criteria (FDEP 2006b).

3.2.4.3 Floodplains

Floodplain Management, Executive Order 11988 issued 24 May 1977, directs all Federal agencies to avoid both long- and short-term adverse effects associated with occupancy, modification, and development in the 100-year floodplain, when possible. Floodplains are defined in this order as "the lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent greater chance of flooding in any given year." Flooding in the 100-year zone is expected to occur once every 100 years, on average. In addition, NPS proposed actions that may adversely affect floodplains must comply with DO #77-2: Floodplain Management.

All federal agencies are required to avoid building in a 100-year floodplain unless no other practical alternative exists. NPS has adopted guidelines pursuant to Executive Order 11998 stating that NPS policy is to restore and preserve natural floodplain values and avoid environmental impacts associated with the occupation and modification of floodplains. The guidelines also require that, where practicable alternative exist, Class I action be avoided within a 100-year floodplain. Class I actions include the location or construction of administration, residential, warehouse, and maintenance buildings, non-excepted parking lots, or other man-made features that by their nature entice or require individuals to occupy the site.

Preferred Alternative (West Site): The entire area of the proposed VCS at the west site lies within a 100-yr floodplain (FEMA 1989). The floodplain in this area is characterized as Zone AE. Zone AE refers to 100-yr floodplains that have base flood elevations determined.

East Site Alternative: The entire area of the proposed VCS at the east site lies within a floodplain (FEMA 1989). FEMA has characterized this site as having two separate

floodplain zones, including Zone AE and Zone X. The majority of the site, including the VCS construction zone is located within the Zone AE floodplain (as described previously). Zone X refers to an area lying within a 100-yr floodplain that has an average depth of less than 1 foot or has a drainage area less than 1 square mile. FEMA has mapped the land surrounding Cedar Point Road as a Zone X floodplain.

3.3 NATURAL RESOURCES

This section discusses the natural resources at TIMU, including the coastal zone, wetlands, terrestrial resources, aquatic resources, threatened and endangered species, and ecologically critical areas.

3.3.1 Coastal Zone

The Coastal Zone Management Act (CZMA) of 1972 was enacted by Congress to encourage states to protect, preserve, develop, and when possible, restore or enhance valuable natural coastal resources. Participation of the CZMA is a voluntary partnership between the federal government and the U.S. coastal states. The Florida Coastal Management Program (FCMP) was established and approved by the National Oceanic and Atmospheric Administration (NOAA) in 1981. FDEP is responsible for implementing the statewide management program. The FCMP consist of a network of agencies implementing 23 statutes that protect and enhance the state's natural, cultural, and economic coastal resources. The goal of this program is to coordinate local, state, and federal activities to ensure that Florida's coast is as valuable to future generations as it is today (FDEP 2006c).

Florida's coastal zone includes the state's 67 counties and its territorial seas; therefore, federal actions that occur within the state are reviewed by FDEP for consistency with the FCMP. This ensures the wise use and protection of the state's water, cultural, historic, and biological resources. In addition, this program helps to minimize the state's vulnerability to coastal hazards, ensures compliance with growth management laws, and protects the state's transportation system. To request for federal consistency concurrency, an applicant is required by the CZMA to provide the State of Florida with information needed to determine whether the proposed project impacts the resources of the state's coastal zone and whether impacts to the state's coastal resources are consistent with the enforceable policies contained in the Florida Coastal Management Program. TIMU is located within Florida's coastal zone.

3.3.2 Wetlands

Section 404 of the CWA and a number of state laws and provisions regulate activities in wetlands. Executive Order 11990 – *Protection of Wetlands*, directs all federal agencies to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative. In the absence of such alternatives, parks must modify actions to preserve and enhance wetland values and

minimize degradation. Consistent with E.O. 11990 and Director's Order #77-1: *Wetland Protection*, NPS adopted a goal of "no net loss of wetlands." Director's Order #77-1 states that for new actions where impacts to wetlands cannot be avoided, proposals must include plans for compensatory mitigation that restores wetlands on NPS lands, where possible, at a minimum acreage ratio of 1:1.

The NPS defines wetlands as vegetated areas that are flooded or saturated for a duration sufficient to allow development of at least one of the three wetland indicators described in the 1987 USACE Wetland Delineation Manual (USACE 1987). The three wetland indicators used include wetland hydrology, undrained hydric soil, or hydrophytic vegetation. This definition differs from that used by USACE to delineate jurisdictional wetlands. The USACE definition requires the presence of all three wetland indicators for an area to be classified as a wetland. There are approximately 48 acres of jurisdictional wetlands delineated throughout the Cedar Point area; however, there are no jurisdictional wetlands located with the limits of the project site alternatives. This document presents wetlands as defined by the one-parameter approach adopted by the NPS.

Wetlands are characterized by soil type and a diversity of vegetation, including trees, shrubs, and herbaceous ground covers. Wetlands provide a variety of beneficial functions from supplying habitat for a variety of wildlife, storage and attenuation of floodwaters, trapping silts and other sediments during floods, and biologically filtering contaminants from surface waters.

The National Wetlands Inventory (NWI) of the U.S. Fish and Wildlife Service (USFWS) produces information on the characteristics, extent, and status of the nation's wetlands and deepwater habitats. The USFWS definition of wetlands is similar to the NPS definition of wetlands in that only one of three parameters (hydric soils, hydrophytic vegetation, and hydrology) is required to characterize an area as a wetland, based upon the Cowardin Classification of Wetlands (Cowardin 1979). The USFWS's objective of mapping wetlands and deepwater habitats is to produce "reconnaissance-level information on the location, type and size of these resources" (USFWS 2006). NWI maps are prepared by the USFWS from the analysis of high altitude imagery and wetlands are identified based on vegetation, visible hydrology and geography. Based on the NWI maps from the USFWS and NPS definition of wetlands, a large portion of Cedar Point is mapped as NPS-defined wetlands. Figure 3-1 presents a general map of the wetlands as mapped by NWI. Wetlands along the eastern boundary of Cedar Point are mapped by the NWI as being estuarine, intertidal, emergent, persistent, and irregularly flooded (E2EMIP). The wetlands on the southeastern tip of Cedar Point are mapped as estuarine, subtidal, unconsolidated bottom wetlands (EIUBL). Wetlands located on the western border of Cedar Point are mapped as being estuarine, intertidal, emergent, persistent, and irregularly flooded wetlands (E2EMIP), and estuarine, intertidal, forested, broad-leaved evergreens, irregularly flooded wetlands (E2FO3P). There are a number of scattered freshwater wetlands scattered throughout Cedar Point. These wetlands include palustrine, emergent, persistent, seasonally flooded wetlands (PEM1C), palustrine, forested, deciduous, semi-permanently flooded wetlands (PFO6F), and palustrine,

forested, needle-leaved evergreen, semi-permanently flooded wetlands (PFO4F). A small excavated palustrine wetland (PEM1Cx) exists northeast of the West Site.

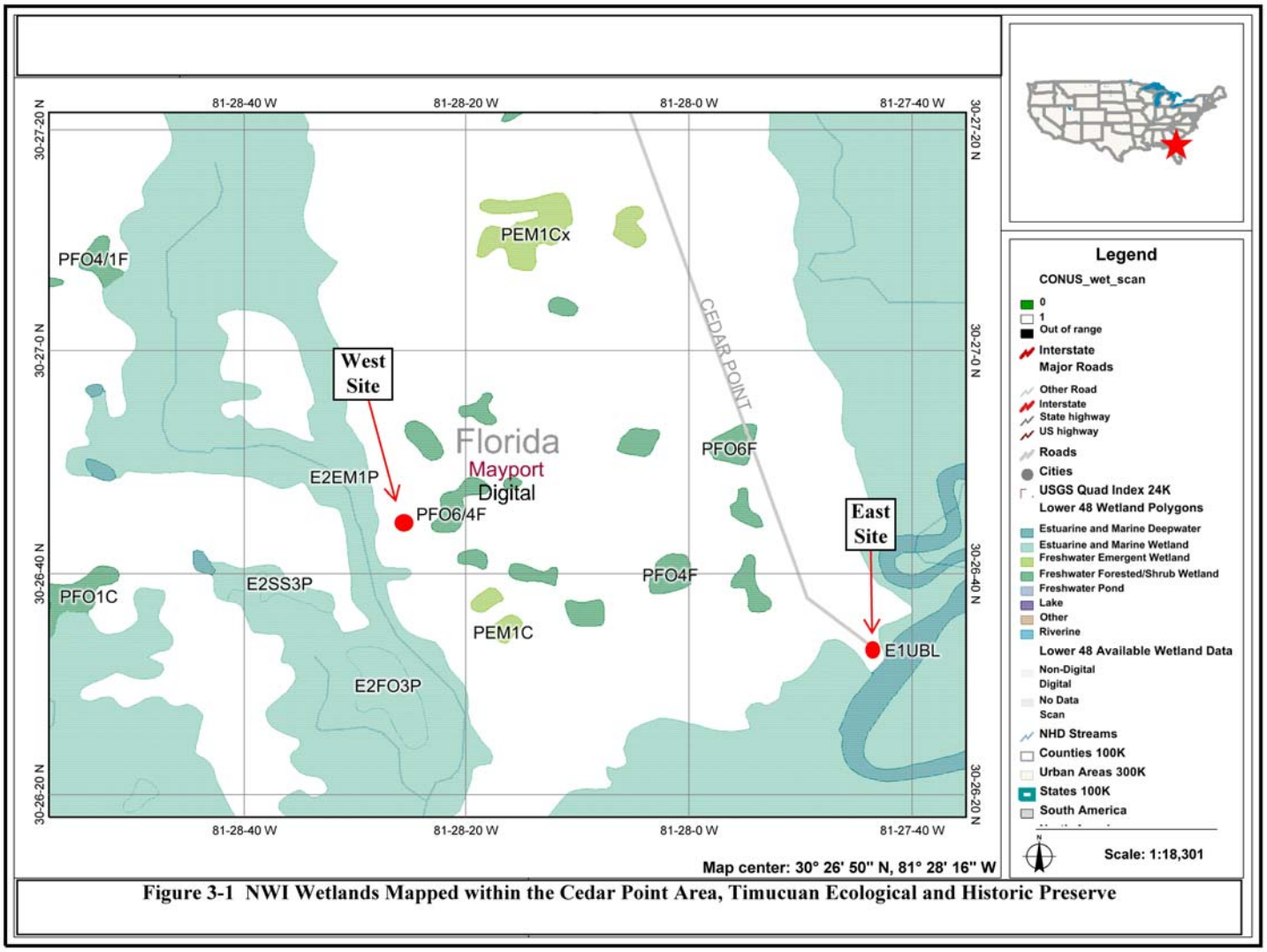

Figure 3-1 NWI Wetlands Mapped within the Cedar Point Area, Timucuan Ecological and Historic Preserve

The wetland classifications within the project area shown in Figures 3-1 have been classified by U.S. Fish and Wildlife Service's NWI as the following:

Table 3-2. Description of the NWI Wetlands Mapped within Cedar Point

NWI Mapping Code	NWI Wetland Classification (Cowardin Classification)	Project Area
$PEM1C_x$	Palustrine, emergent, persistent, seasonally flooded, excavated	Northeast of West Site Alternative
PEM1C	Palustrine, emergent, persistent, seasonally flooded	West Site Alternative
PF06F	Palustrine, forested, deciduous, semi-permanently flooded	East and West Site Alternatives
PF04F	Palustrine, forested, needle-leaved evergreen, semi-permanently flooded	East and West Site Alternatives
E1UBL	Estuarine, subtidal, unconsolidated bottom,	East Site Alternative
E2EM1P	Estuarine, intertidal, emergent, persistent, irregularly flooded	East and West Site Alternatives
E2SS3P	Estuarine, intertidal, scrub-shrub, broad-leaved evergreen, irregularly flooded	City of Jacksonville
E2FO3P	Estuarine, intertidal, forested, broad-leaved evergreen, irregularly flooded	West Site Alternative
PFO1C	Palustrine, forested, broad-leaved deciduous, seasonally flooded	City of Jacksonville

Source: USFWS 2006

In addition to the NWI maps, the Duval County Soil Survey has mapped hydric soils (one of the three wetland indicators) on Cedar Point. The hydric soil series include Evergreen-Wesconnett complex (map unit 22), Hurricane and Ridgewood soil (map unit 24), and Leon fine sand (map unit 32), indicating a wetland based upon USFWS and NPS standards. The hydric soils mapped within the Preferred Alternative (West Site) location have been disturbed due to previous silviculture practices and no longer function as hydric soils. The hydric soils mapped within the East Site Alternative location have been previously disturbed by road construction and ditching for drainage, as well as general disturbance from fish camp developments over the previous forty years, therefore the soils no longer function as hydric soils. Hydric soils that no longer support wetland hydrology or vegetation are not considered wetlands. Therefore, NPS-defined wetlands are not located within the project site alternatives.

3.3.3 Terrestrial Resources

This section of the EA discusses terrestrial resources including vegetation and wildlife found at TIMU. Federally listed threatened and endangered species potentially occurring at TIMU are discussed in Section 3.3.5.

3.3.3.1 Vegetation

In 1991 the Florida Game and Fresh Water Fish Commission conducted a vegetation survey within TIMU. Based on their results, 53.7 percent of the preserve is coastal salt marsh, 23.3 percent is open water, 5.1 percent is pinelands, 4.7 percent is hardwood hammocks and forests, and 3.8 percent is barren land (NPS 2004).

Dominate grass and rush species within the salt marsh areas include *Spartina* and *Juncus*. The pineland communities include pine flatwoods and commercial pine plantations, with longleaf pine (*Pinus palustris*), slash pine (*Pinus elliottii*), and loblolly pine (*Pinus taeda*) as dominate upland species. Typical understory species include saw palmetto (*Serenoa repens*), gallberry (*Ilex glabra*), and wax myrtle (*Myrica cerifera*). The hardwood hammocks and forests have a wide variety of plant species depending on soil moisture and soil type in the area. Mesic hammock areas are dominated by beech (*Fagus L.*), magnolia (*Magnolia grandiflora*), oak (*Quercus* sp.), hickory (*Carya* sp.), ash (*Fraxinus* sp.), red mulberry (*Morus rubra*), and pine. The xeric hammock areas are dominated by oaks and hickory. Coastal hammock areas are dominated by oak, maple (*Acer* sp.), elm (*Ulmus* sp.), cabbage palm (*Sabal palmetto*), southern red cedar (*Juniperus silicicola*), beech and sweetgum (*Liquidamber stryciflua*).

The Cedar Point area within TIMU contains both pineland communities and oak hammock communities. The East Site Alternative is predominantly comprised of an oak hammock community. The vegetation in these areas is predominantly oak trees. The understory is typically sparse due to the complete canopy cover of the large oak trees. Spanish moss drapes many of the branches of the oak trees.

The West Site Alternative contains mostly heavily disturbed pine flatwoods and a small amount of oak hammock community. The vegetation in these areas is mostly longleaf and slash pine species. The land owned by the City of Jacksonville opposite of the West Site Alternative contains the oak hammock community and planted pines.

The central and northern area of the NPS land in Cedar Point is described as a planted pine community. These areas were once utilized for forestry practices. Dominate species include slash pine and loblolly pine which were established by seedling planting.

3.3.3.2 Wildlife

The diversity of habitats found at TIMU supports a rich variety of wildlife, both aquatic and terrestrial. The estuaries and marshes provide habitat to many mammal and avian species throughout the preserve. Marshes and oak hammock areas within Cedar Point are located in the Atlantic Flyway, a bird migration route providing overwintering areas for many species.

Birds

Approximately 300 bird species are known to occur within TIMU preserve (NPS 2007a). These birds include year round, winter and summer residents, as well as migrant avian species. Common year-round species within the preserve include the brown pelican (*Pelecanus occidentalis*), double-crested cormorant (*Phalacrocorax auritus*), white ibis (*Eudocimus albus*), great blue heron (*Ardea herodias*), great egret (*Casmerodius albus*), black vulture (*Coragyps altratus*), osprey (*Pandion haliaetus*), red-shouldered hawk (*Bureo lineatus*), ring-billed gull (*Larus delawarensis*), eastern screech owl (*Otus asio*), great horned owl (*Bubo virginianus*), Carolina wren (*Thryothorus ludovicianus*), and killdeer (*Charadrius vociferous*). Species spotted in the summer and winter months include the bald eagle (*Haliaeetus leucocephalus*), summer tanager (*Piranga rubra*), American robin (*Turdos migratorius*), black-bellied plover (*Pluvialis squatarola*), gray catbird (*Dumetella* carolinensis) and herring gull (*Larus argentatus*). Migratory species include the American redstart (*Steophaga ruticilla*), belted kingfisher (*Megaceryle alcyon*), Northern waterthrush (*Seiurus noveboracensis*), and woodthrush (*Hylocichla mustelina*).

Mammals

Many mammal species inhabit the upland areas throughout the preserve. Common species include the armadillo (*Dasypus novemcinctus*), bobcat (*Lynx rufus*), cotton mouse (*Peromuscus gossypinus*), Eastern gray squirrel (*Sciurus carolinensis*), Eastern mole (*Scalopus aquaticus*), Eastern woodrat (*Neotoma floridana*), opossum (*Didelphis marsupialis*), raccoon (*Procyon lotor*), white-tailed deer (*Odocoileus virginianus*), and river otter (*Lutra canadensis*). Cedar Point also has a population of free-ranging feral hogs (*Sus scrofa*). This feral hog population seems to compete with many of the native species for food. Many of the species listed above not only depend on the upland habitats, but also the wetland and salt marsh areas where they find food.

Reptiles and Amphibians

Many of the reptiles and amphibians within the preserve inhabit the upland areas, very few are found throughout the salt marshes. Some of the common reptiles found in the forested areas include the Florida box turtle (*Terrapene carolina bauri*), gopher tortoise (*Gopherus polyphemus*), five-lined skink (*Eumeces fasciatus*), green anole (*Anolis carolinensis*), Southern black racer (*Coluber constrictor priapus*), and the Florida cottonmouth (*Agkistrodon piscivorus conanti*). Common reptiles found in the freshwater wetland communities include the American alligator (*Alligator mississippiensis*), Eastern mud turtle (*Kinosternum subrubrum*), Florida softshell (*Apalone ferox*), and the Florida snapping turtle (*Chelydra serpentine osceola*). Amphibian species are typically associated with the upland wetlands. Common species include the slimy salamander (*Plethodon glutinosis*), Southern dusky salamander (*Desmognathus auriculatus*), green tree frog (*Hyla cinerea*), squirrel tree frog (*Hyla squirella*), and southern leopard frog (*Rana sphenocephala*).

3.3.4 Aquatic Resources

TIMU supports a large number of aquatic resources including fish, shellfish, and crustaceans.

Finfish

The Florida Fish and Game Commission (FFGC now renamed Florida Fish and Wildlife Conservations Commission - FFWCC) estimated that a total of 55 freshwater and 115 marine and estuarine fish species occur within the vicinity of TIMU in the St. Johns River basin. Common commercial fish species include spotted seatrout (*Cynoscion nebulosus*), weakfish (*Cynoscion regalis*), Atlantic croaker (*Micropogon undulates*), spot (*Leiostomus xanthurus*), black drum (*Pogoias cromis*), and red drum (*Scianeops ocellatus*). The adults of these species occur within the estuary or within the shallow coastal waters, however the young of these species require the estuaries for nursing grounds. Some other species that utilize the estuary include anchovy sp., Atlantic menhaden (*Brevortia tyrannus*), mullet sp., flounder sp., pinfish **(***Lagodon rhomboids*), and bluefish (*Pomatomus saltatrix*).

Shellfish

Common shellfish species and invertebrates that are found throughout the salt marsh and estuary of TIMU include the fiddler crab (*Uca pugnax*), mud snails (*Nassaius vibex*), periwinkle snails (*Littorina littorea*), American oyster (*Crassostera virginica*), Atlantic ribbed mussel (*Geukensia demissa*) and blue crabs (*Callinectes sapidus*). White shrimp (*Penaeus setiferus*) are also common throughout the estuary. This species is typically found during May and June when the species is spawning. The white shrimp migrates in late fall.

3.3.5 Threatened and Endangered Species

Certain species of plants and animals are protected by federal regulations under the Endangered Species Act (ESA) of 1973. NPS policy requires parks to consider impacts of actions to state listed species. While the Florida Fish and Wildlife Conservation Commission (FWCC) maintains a state list of threatened and endangered (T&E) animals, and the Florida Department of Agriculture and Consumer Services (DACS) maintains a list of plants, the USFWS maintains the official listing of T&E species. T&E species are those plant and animal species that are most in need of conservation efforts due to habitat loss and declining populations.

Under the consistency clause (Section 7[a]) of the ESA, NPS is required to consult with USFWS and National Marine Fisheries Service (NMFS) if federally protected T&E species may be present in the area affected by a proposed project. NMFS and USFWS share authority over certain federally protected species and have total jurisdiction over others. Table 3-3 lists the state and federally protected T&E that may be found within the

preserve. These species could be present or inhabit areas within the vicinity of Cedar Point.

Table 3-3. Federally and State Listed Species Occurring in Duval County

Scientific Name	Common Name	Federal Status	State Status
Birds			
Mycteris americana	Wood stork	E	E
Picoides borealis	Red-cockaded woodpecker*	E	S
Charadrius melodus	Piping plover	T	T
Haliaeetus leucocephalus	Bald eagle	T	T
Charadrius alexandrinus	Snowy plover		T
Egretta refescens	Reddish egret		S
Sterna antillarum	Least tern		T
Cistothorus palustris griseus	Worthington's marsh tern		S
Egretta tricolor	Tricolored heron		S
Eudocimus albus	White ibis		S
Haematopus palliatus	American oystercatcher		S
Pandion haliaetus	Osprey		S
Rynchops niger	Black skimmer		S
Fish			
Acipenser brevirostrum	Shortnose sturgeon	E	E
Mammals			
West Indian manatee	Trichechus manatus	E	E
Reptiles			
Cheionia mydas	Green sea turtle	E	E
Dermochelys coriacea	Leatherback sea turtle	E	E
Eretmochelys imbricate	Hawksbill sea turtle	E	E
Lepidochelys kempii	Kemp's ridley sea turtle	E	E
Caretta caretta	Loggerhead sea turtle	T	T
Drymarchon corais couperi	Eastern indigo snake*	T	T
Alligator mississippiensis	American alligator	T (S/A)	S
Gopherus polyphemus	Gopher tortoise		S
Pituophis melanoluas mugitus	Florida pine snake		S
Plants			
Cheilanthes microphylla	Southern lip fern		E
Foresteria godfreyi	Godfrey's privet		É
Lantana depressa var. *floridana*	Atlantic Coast Florida lantana		E
Peperomia humilis	Terrestrial peperomia		E
Spiranthes polyantha	Green ladies'-tresses		E

Source: www.fws.gov/northflorida.

Keys to table: E=endangered; T=threatened; T(S/A)=threatened due to similarity of appearance to a threatened taxon; S=species of special concern; *=Species have never been documented on TIMU lands.

The loggerhead sea turtle is the only marine turtle expected to nest in the vicinity of the preserve. Since the preserve does not administer any beaches, there are no sea turtle nests on federally owned lands. All other listed sea turtle species are observed periodically in the waters of the preserve. There has been no record of active or inactive red-cockaded woodpecker colonies within TIMU boundaries. However, there is potential for this species if mature pine stands occur. Manatees are known to occur within the St. Johns River. During the warm months, they frequently are observed along the Intracoastal Waterway. All waters within the preserve boundary is considered critical habitat for the manatee.

3.3.6 Unique Natural Areas

3.3.6.1 Ecologically Critical Areas

Public Law 95-632 (92 Stat. 375), signed in 1978, made extensive revisions to the ESA. It requires consideration of the economic impact of designating critical habitat and review of the list of federally endangered and threatened species every five years. Critical habitat is defined in the ESA as a specific geographic area that contains habitat features essential for the conservation of a threatened or endangered species. Designated critical habitat areas are necessary for the recovery of endangered or threatened species, even though the species of concern may not be documented in these areas.

Fort George Inlet, located east of Cedar Point is designated as an active Critical Wildlife Area in Florida for the least tern, black skimmer, and laughing gull from April 1 to September 1. As mentioned above, all waters within the preserve are designated as critical habitat for the West-Indian manatee.

3.3.6.2 Designated Natural Areas

Florida enacted the Aquatic Preserve Act in 1975 to ensure that aquatic preserves "aesthetic, biological, and scientific values may endure for the enjoyment of future generations." The Nassau River-St. Johns River Marshes Aquatic Preserve boundaries somewhat overlap those of the Timucuan Preserve. The NRSJRMAP is one of the 41 aquatic preserves within the state of Florida, encompassing almost two million acres (FDEP 2006d). This preserve includes many of the marshes between the Nassau River and St. Johns River. This area encompasses approximately 57,000 acres of sovereign submerged lands. The waters of the preserve act as critical nurseries for fish and other aquatic life, recreational opportunities for Floridians, and host numerous archaeological sites. This area was designated as an aquatic preserve in 1969 for the purpose of preserving the biological resources of the Nassau sound area marshes and associated waters.

3.4 CULTURAL RESOURCES

3.4.1 Background

This section describes the cultural resources within TIMU. Cultural resources include both archaeological sites and historic resources, which are defined as buildings and structures that are 50 years old or older.

Several archaeological surveys and investigations have taken place at TIMU since 1987 by the NPS Southeast Archaeological Center, Keith Ashley, William Jones, Robert Thunen, and Rhena Shreve. These researchers have contributed to the understanding of the archaeological resources at Cedar Point and the importance of the cultural history of this area in Northeast Florida. The surveys have provided a comprehensive coverage of a portion of the park, have indicated the locations of some archaeological sites, and have provided information on the range of cultural resources and the likelihood of finding any additional archaeological or historical sites.

3.4.2 National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended (36 Code of Federal Regulations (CFR) Part 800), requires federal agencies to consider the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment. The purpose of NHPA is to ensure that federal agencies consult with state and local groups before non-renewable cultural resources are impacted or destroyed and ensures that preservation values are factored into Federal agency planning and decisions.

3.4.3 Archaeological Resources

Preferred Alternative (West Site): Immediately following timber clear-cutting operations, an archaeological survey was conducted in 1990 which included the project area of the proposed location of the West Site. During this survey six potential archaeological sites were identified, including five shell midden sites and one historic garbage dump (Russo 1991). These six sites were determined to be heavily disturbed due to timber harvesting activities. In 2003, the NPS resurveyed approximately 160 acres which included the Cedar Point Prescribed Fire Project Area (including the West Site). Three of the six previously reported sites were rediscovered, the sites were represented by scattered oyster shell. The results of this survey indicated that none of the six sites are considered eligible for the inclusion in the National Register of Historic Places (NRHP) (FL DHR 2003) (Appendix B).

East Site Alternative: Currently, there are six known archaeological resources present within the area of the East site alternative. These archaeological sites represent the historic and prehistoric cultural history of the area. They comprise two historic plantation sites (8DU82 and 8DU3159), two multi-component historic and prehistoric shell midden sites (8DU63 and 8DU81), and two prehistoric shell midden sites (8DU64 and 8DU626).

All six of these sites have been evaluated and eligible for nomination to the NRHP and concurred upon by the State Historic Preservation Office (SHPO) and Advisory Council on Historic Preservation (NPS 2004). Also, a programmatic agreement has been established with the SHPO for mitigation of effects to these sites as a result of the actions being undertaken within the proposed project areas at Cedar Point (see Appendix B for a copy of the programmatic agreement). Artifacts recovered from these sites indicate that the proposed project area was occupied from the prehistoric Late Archaic period up to modern times with a historic fish camp (UNFAL 2006).

3.4.4 Historic Resources

Preferred Alternative (West Site): Currently, there are no historic properties listed on the NRHP within the project area of the Preferred Alternative. A historic garbage dump was located and identified on the site; however it is not eligible for inclusion in the NRHP.

East Site Alternative: The Fitzpatrick Plantation ruins, which includes remnants of a tabby structure (8DU82) is one historic site that has been identified and evaluated. Also, two multi-component historic and prehistoric sites were located and evaluated. Sites 8DU63 and 8DU81 both have remnants of historic fish camp components. All of these sites have been evaluated as eligible for inclusion in the NRHP based on their historic components as well as prehistoric components.

3.5 HUMAN ENVIRONMENT

This section of the EA discusses the human environment at TIMU, including recreation, environmental justice, aesthetics, public health and safety, and energy requirements and conservation.

3.5.1 Recreation

TIMU offers a variety of recreational activities throughout the park including bird watching, boating, fishing, kayaking, nature walks, biking, picnicking, horseback riding, and wildlife viewing. The trails throughout the preserve take visitors through hammocks and along beaches, rivers, and salt marshes. Many visitors enjoy walking along the marsh banks watching for wading birds and shellfish. Like many areas throughout TIMU, Cedar Point offers excellent bird watching; it has been selected as a stop on the Great Florida Birding Trail. TIMU guests also can visit the historical and archaeological sites found throughout the park.

In a February 20, 2007 agency response coordination letter, The City of Jacksonville's Planning and Development Department stated that the proposed project is consistent with the goals, objectives, and policies of the Conservation/Coastal Management Element, the Recreation and Open Space Element, and the Future Land Use Element of the City's 2010 Comprehensive Plan. In a February 21, 2007 agency response coordination letter, the City of Jacksonville's Department of Parks, Recreation, Entertainment, and Conservation stated that the proposed project is consistent with recreation and

preservation goals held by the City of Jacksonville Preservation Project, which manages 450 acres of property adjacent to the NPS Cedar Point parcel (See Appendix A for copies of the agency response letters).

3.5.2 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations requires Federal agencies to make achieving environmental justice part of its mission. Specifically, each agency must identify and address "disproportionately high and adverse human health or environmental effects of its programs, policies and activities on minority populations and low-income populations." The intent is to prevent minority and low-income populations from being disproportionately affected by adverse human health and environmental impacts of Federal actions.

Ethnic Composition

In 2005, the total population in Duval County was 810,698 individuals. A total of 37 percent of the county's residents that were surveyed during the 2005 U.S. Census were minorities. The population of Duval County was composed of 506,961 whites, 240,117 African Americans, 28,646 Asians, 2,546 American Indian or Alaska Native, 264 Native Hawaiian and other Pacific Islander, 19,475 persons of other racial backgrounds, and 12,689 of two or more races (USCB 2005).

Cedar Point is located in Census Tract 101.02. The U.S. Census (2000) estimated the total population of Census Tract 101.02 to be 4,589 individuals (2005 data unavailable). Minorities accounted for 2.3 percent of the population, which was less than county levels (37%). Census Tract 101.02 was composed of 29 African Americans, 13 American Indian or Alaska Native, 12 Asians, 7 persons of other racial backgrounds, and 42 of two or more races (USCB 2000).

Income Distribution

According to the 2005 U.S. Census, the median household income for Duval County was $44,470. Poverty statistics are determined using poverty thresholds, which are based on income levels, family size, and the number of related family members under 18 years of age within the household. Within Duval County, 9.3 percent of the households reported living under the poverty level. Of these households 3.3% were married families and 24.9% were families with a female householder (no husband present).

According to the 2000 U.S. Census, the median household income within Census Tract 101.02 was $57,576. A total of 77 families within this tract were living below the poverty level. Of these families, 46 were families with a female householder.

3.5.3 Aesthetics

The aesthetic nature of TIMU's surrounding area is well preserved as most of the surrounding lands have been set aside for conservation due to the historic and natural resources that exist.

Preferred Alternative (West Site): The west site is a pine flatwoods community that lies just west of a timber clear cutting region.

East Site Alternative: The east site is a cleared grassy area with areas of exposed soil surrounded by an oak hammock community.

3.5.4 Public Health and Safety

Existing public health and safety conditions within the Cedar Point area are common natural hazards (i.e., contact with poisonous plants, snake bites, fire ants) typical and common to the Florida environment. Additionally, the lack of restrooms at Cedar Point has resulted in the improper disposal of human waste.

3.5.5 Energy Requirements and Conservation

Existing energy requirements at the park are minimal. The Timucuan Preserve Visitor Center (located at Fort Caroline) and Kingsley Plantation are open daily from 9 AM till 5 PM. The Cedar Point area currently has no energy requirements, however lines for electric and telecommunications are available at the East Site.

3.5.6 Infrastructure

The following utilities currently serve the Cedar Point Area:

- ***Electricity:*** Electricity is currently being provided by JEA. JEA provides electric to more than one million customers in Duval County and portions of St. Johns and Clay Counties.

- ***Water:*** There is no municipal water available at Cedar Point.

- ***Telecommunications:*** Bell South provides TIMU with telecommunications service.

- ***Roadways:*** The main access into Cedar Point is Cedar Point Road which is a paved road owned by the City of Jacksonville.

Preferred Alternative (West Site): There are no public utilities available at the West Site; however, electricity and telecommunications are currently located along Cedar Point

Road. Additionally, no municipal water or sewage is available at this site. Currently there are no roads available to the proposed location of the VCS.

East Site: The East Site offers electrical and telecommunication lines extending from Cedar Point Road, however they are currently not in use. No municipal water or sewage is available at this site.

3.6 VISITOR USE AND EXPERIENCE

The NPS directly manages 8,350 acres within the legislative boundaries. The park consists of many small areas within a 46,000 acre river valley. Visitors have the chance to enjoy areas including Cedar Point, Kingsley Plantation, Fort Caroline National Monument, and the Theodore Roosevelt Area. Cedar Point and the Theodore Roosevelt areas are known for hiking, nature observation, fishing, birding, and photography. Visitors have access to the marine estuarine environment and the coastal hammock forest. The Kingsley Plantation offers guests a chance to view the 19th century sea-island cotton plantation including the planter's house, barn, slave quarters, and garden with crops from that time period. There are two visitor contact stations, the Kingsley Plantation Visitor Contact Station and the Timucuan Ecological and Historic Preserve Visitor Center at Fort Caroline. The main exhibit at the TIMU Visitor Center is "Where the Waters Meet". This exhibit focuses on the ecology of the marine estuary and the interaction of the people that once lived there with the environment. Visitor contact stations are open daily from 9:00 AM till 5:00 PM. In addition to the two visitor contact stations, TIMU has many interpretive trails that focus on other important historical and or ecological sites. At Cedar Point, visitors have the opportunity to boat, fish, view wildlife, and walk along the trails and marsh.

In 2006, approximately 1,236,000 visitors came to the preserve (which includes Fort Caroline). This number was 11 percent higher than the 1,105,000 visitors that came in 2005. In 2006, the Cedar Point area had approximately 74,000 visitors. The Cedar Point area was more visited than the Kingsley Plantation (56,141 visitors) and the Theodore Roosevelt Area (55,769 visitors) (NPS 2007b).

3.7 PARK OPERATIONS

This section of the EA describes the existing conditions related to park operations and administration. Most of the operations necessary to manage the park occur at the park headquarters, Kingsley Plantation, and Ft. Caroline.

TIMU currently has 30 employees. This includes 21 permanent employees and 9 temporary. The park has 1 superintendent, 9 maintenance staff, 6 administrative staff, 4 resource management staff, and 10 interpreters.

There are a total of 14 parking areas located throughout the park. The two primary parking areas are located at the TIMU Visitor Center and Kingsley Plantation. Other parking areas are available throughout the park at the Theodore Roosevelt Area, Cedar

Point, and trailheads. Public boat docks owned by the NPS are available at Fort Caroline and Kingsley Plantation and a boat ramp is located at Cedar Point. Other boat ramps are available within the boundaries of the preserve, but are not owned and managed by the NPS.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 CHAPTER OVERVIEW

The NEPA requires the disclosure of environmental impacts associated with the preferred alternative and other alternatives including the No Action Alternative. This section presents the environmental impacts of the preferred alternative (West Site), the East Site, and the No Action Alternative on physical resources, natural resources, cultural resources, human environment, visitor use and experience, and park operations. These analyses provide the basis for comparing the effects of the alternatives. NEPA requires consideration of context, intensity and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate for impacts. NPS policy also requires that "impairment" of resources be evaluated in all environmental documents.

Chapter 4 describes and analyzes potential environmental effects on the physical, natural and human environment associated with the proposed action alternatives and the No Action Alternative. In addition, cumulative impacts, as defined in regulations developed by the CEQ[1], are discussed throughout this chapter for each resource. A cumulative impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

4.1.1 Statutory Requirements

Primary laws and guidance documents that guided the development of this EA are:

- National Park Service Organic Act of 1916 (16U.S.C. 1-4, et seq.) – Created the National Park Service to promote and regulate the use of national parks, monuments, and reservations, by such means and measures as to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the land in such manner as will leave them unimpaired for the enjoyment of future generations.

- The National Historic Preservation Act of 1966 as amended (16 U.S.C. 470) – To protect and preserve historic districts, sites and structures, and archeological, architectural and cultural resources. Section 106 and Section 110 (36 CFR 800) respectively require consultation with the State Historic Preservation Office and that NPS nominate all eligible resources under its jurisdiction to the National Register of Historic Places.

- The National Environmental Policy Act of 1969 – Public Law 91-190 established a broad national policy to improve the relationship between humans and their environment and sets out policies and goals to ensure that environmental

[1] Code of Federal Regulations, Title 40, Section 1508.7.

considerations are given careful attention and appropriate weight in all decisions of the federal government. This legislation requires and guides the preparation of this EA.

- National Park Service Regulations and Policies – Actions proposed in this document are subject to the NPS Director's Order #28 (Cultural Resource Management), Director's Order #2 (Park Planning), Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-making), and Director's Order #77 (Natural Resource Protection). Actions are also subject to the service-wide policy document, Management Policies (NPS 2006b).

4.1.2 Methods for Evaluating Environmental Effects

The method of analysis of potential effects is based on the *Director's Order* #12 Handbook [sec 5.4(f)]. Four categories of effects are considered: direct effects, indirect effects, cumulative effects and impairment. The context, duration, and intensity of the impacts must also be defined. Intensity of effects and thresholds of significance are defined for both beneficial and adverse effects. These are further defined in Section 4.1.2.2.

Where quantitative data were not available, best professional judgment was used to determine impacts. In general, the thresholds used come from existing literature, consultation with subject experts, and appropriate agencies.

To analyze impacts, methods were selected to predict the potential change in park resources that would occur with the implementation of the alternatives. Evaluation factors were established for each impact topic to assess the changes in resource conditions of the alternative. The study area was defined to include resources within TIMU and the region that might reasonably be affected. Because resources vary in function and relation to environmental factors, the study area was defined independently for each impact topic.

4.1.2.1 Impact Categories

Three impact categories are used in this analysis and defined below.

Direct Effects – Direct effects are impacts that are caused by the alternative at the same time and in the same place as the action.

Indirect Effects – Indirect effects are impacts caused by the alternatives, that occur later in time or farther in distance than the action.

Impairment - The NPS *Management Policies 2006* requires an analysis of potential effects to determine whether or not actions would impair park resources. The primary purpose of the NPS, as established by the Organic Act and reaffirmed by the General Authorities Act, as amended, is to conserve park resources and values. Impacts to park

resources and values are allowed when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Impairment is an impact that would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.

NPS Management Policies conducted an analysis to determine whether the magnitude of impacts identified for specific impact topics reached the level of "impairment," as defined. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; or

- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or

- identified as a goal in the park's general management plan or other relevant NPS planning documents.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

An impact that may, but would not necessarily, lead to impairment may result from visitor activities; NPS administrative activities; or activities undertaken by concessionaires, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park (NPS 2006b).

4.1.2.2 Impact Definitions

Each potential impact is described in terms of its context (site-specific, local, or regional), duration (short-term or long-term), and intensity (negligible, minor, moderate, or major). For the purposes of analysis, the following definitions, unless stated otherwise, are used for all impact topics:

Duration

Short-term impacts: Impacts that might occur during the site preparation and construction phases of the VCS at Cedar Point or in the short-term (1 to 6 months) after implementation of the VCS.

Long-term impacts: Those impacts occurring from the implementation of the VCS at Cedar Point through the next 10 years.

Intensity

Negligible: Impacts would have no measurable or perceptible changes to the resource.

Minor

Adverse: Impacts would be measurable or perceptible but would be localized within a relatively small area. The overall viability of the resource would not be affected and, if left alone, would recover.

Beneficial: Resource improvement would be perceptible, but barely, and localized within a small area of the park.

Moderate

Adverse: Impacts would cause a change in the resource; however, the impact would remain localized.

Beneficial: Resource improvements would be measurable, enhancing the viability of the resource within the park.

Major

Adverse: Impacts to the resource would be substantial, highly noticeable, and permanent.

Beneficial: Resource improvements would be substantial, enhancing the viability of the resource within the park, the surrounding community, and beyond.

4.2 PHYSICAL RESOURCES

This section discusses the impacts of the alternatives, including the No Action Alternative on the physical environment, including soils, air quality, noise, and water resources.

4.2.1 Soils

Preferred Alternative (West Site): The construction phase of the proposed project (includes constructing the VCS building, trailer pad, Access Road, parking area, wastewater treatment system, and trail network) would have short-term, minor, adverse impacts to soils; however these impacts would be localized at the site. Approximately three acres of land would be cleared for construction of the VCS and supporting structures. The Access Road is approximately 3,800 linear feet and would contribute another two acres. Approximately five acres of soil would be impacted from the proposed project. The potential of soil migration would be minimized through the use of sediment and erosion control measures as required by applicable local regulations.

East Site: The construction phase of the proposed project (includes constructing the VCS building, parking area, wastewater treatment system, and trail network) would have short-term, minor, adverse impacts to soils; however these impacts would be localized at the site. Less than one acre of land would be cleared for construction of the VCS and

supporting structures. The potential of soil migration would be minimized through the use of sediment and erosion control measures as required by applicable local regulations.

No Action Alternative: Under the No Action Alternative Cedar Point would remain in its current use, and no action would be taken. Therefore, the No Action Alternative would not result in any environmental impacts to the soils at TIMU.

Conclusion: The proposed project would result in short-term, minor, adverse impacts to soil during construction. The potential for erosion would be minimized through the use of sediment and control measures. The No Action Alternative would not impact the soil at TIMU. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Following comparisons of the Preferred Alternative (West Site Alternative) and the East Site Alternative both alternatives result in similar short-term minor impacts to soil. Cumulative impacts to soils are not anticipated.

4.2.2 Air Quality

Impacts Common to West and East Site Alternatives: The construction phase of the proposed project would have short-term, minor, adverse impacts on air quality. During the construction phase of the project, the operation of construction equipment would generate some criteria pollutant emissions, including carbon monoxide, nitrogen oxides, and particulate matter. However, these emissions would be minimal since the proposed construction activities are temporary. Short-term fugitive gas emissions would be generated primarily from the land-disturbing activities to remove the vegetation and install the proposed VCS and supporting structures. Overall, these impacts would be short-term in nature, lasting only the duration of the construction activities.

Minor, long-term, adverse impacts to air quality would occur during the operation of the VCS from stationary sources. Stationary sources include air conditioning and heating units located in the restrooms, interpretive, and concessionaire areas. TIMU is within Duval County, which is currently in attainment with USEPA air quality criteria for all six criteria pollutants.

No Action Alternative: Under the No Action Alternative, Cedar Point would remain in its current use, which would not cause an increase in air quality pollutants.

Conclusion: The implementation of the proposed project would result in minor, short-term, adverse impacts to air quality due to the construction of the VCS and supporting structures and minor, long-term, adverse impacts during the operation of the VCS from stationary sources. The No Action Alternative would not impact air quality. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to air quality are not anticipated. A short-term, minor impact on air quality during construction and a long-term, minor impact

during operation of the VCS would contribute an undetectable amount of pollutants to the Cedar Point area.

4.2.3 Noise

Impacts Common to West and East Site Alternatives: The construction phase of the project is expected to create minor, short-term, adverse impacts on noise at the park. These impacts would be short-term in nature, lasting for the duration of construction activities. Noise is expected, but noise impacts would be temporary and localized in the vicinity of the construction site and would not disrupt the surrounding area. Construction noise is expected to temporarily impact visitor experience at the park. Short-term sources of noise include the clearing of vegetation and the construction of the VCS and supporting structures. Construction close to the water has the greatest potential to create noise disturbance, as sound can be heard at greater distances over water rather than land. Short-term, temporary noise impacts may cause avian and other wildlife to avoid areas in close proximity to the construction site. These impacts would cease after the construction is completed.

There is a potential for long-term, minor, adverse noise impacts due to the increased activities within the Cedar Point area once the VCS is implemented. Noise associated with the use of the facility may increase relative to current levels from standard building features, additional vehicle traffic, and additional recreational use.

No Action Alternative: Current noise levels within the park would remain unchanged under the No Action Alternative. Current noise sources are from human recreation activities and from natural wildlife sounds.

Conclusion: The implementation of the proposed project would result in short-term, minor, adverse impacts to noise during construction of the VCS. Long-term, minor, adverse impacts would be anticipated after the completion of the VCS due to the increased activities in the area. Current noise sources within the park would remain unchanged under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative noise impacts are not anticipated as there is no additional development planned within the Cedar Point area. The land in this area is mainly used for conservation of natural and historic resources. However, residential development is on-going throughout community areas adjacent to Cedar Point, which is a source for noise impacts to the region.

4.2.4 Water Resources

4.2.4.1 Hydrology

Impacts Common to West and East Site Alternatives: Long-term, negligible, adverse impacts to hydrology are anticipated to occur during the construction and implementation

of the proposed project from the clearing of vegetation. Approximately five acres of land would be cleared at the West Site for the construction of the VCS and supporting structures which includes the Access Road. Less than one acre of land would be cleared at the East Site for the construction of the VCS and supporting structures. However, impacts to hydrology would be minimized by using pervious surfaces for the parking area, trail network, and roads. This would allow rainwater to penetrate through the ground surface and into the water column. Additionally, revegetating and stabilizing the area at the end of the construction period and implementing stormwater control techniques would minimize the impacts to hydrology.

No Action Alternative: The current hydrology within TIMU would remain unchanged under the No Action Alternative. The No Action Alternative would not result in any changes to the hydrology at Cedar Point.

Conclusion: Impacts from the proposed project to hydrology would be negligible. This is due to the use of pervious and semi-pervious surfaces for the parking area, trail network, and roads. There would be no impacts to hydrology under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts to hydrology are anticipated. Pervious and semi-pervious material would be used for roadways, trails, and parking lot surfaces, minimizing impacts to hydrology.

4.2.4.2 Water Quality

Impacts Common to West and East Site Alternatives: The construction phase of the project would create short-term, minor, adverse effects to water quality. These impacts would result from the potential sediment runoff into nearby waterways during the clearing of vegetation and construction and grading activities. These activities may result in increases in sediment input and turbidity in the surrounding waters. Erosion and sediment best management practices (BMPs) would be employed during the construction of the VCS and its components to minimize impacts to Pumpkin Hill Creek.

The operational phase of the proposed project would result in long-term, negligible, adverse impacts to water quality. Impacts to water quality would be minimized by using pervious surfaces for the parking area, trail network, and roads. This would allow rainwater to penetrate through the ground surface and into the water column, which would reduce and/or eliminate runoff into Pumpkin Hill Creek. In addition, the entire VCS would be elevated on treated wood poles further reducing impervious surfaces at the site. Sanitary waste would be treated on site with a sanitary treatment mound system or performance-based septic system. Specifics of the sanitary management system including design and implementation will be addressed in the design phase of the project. Approximately one hundred feet of vegetative buffer would remain adjacent to the Pumpkin Hill Creek marsh. The VCS and associated structures (i.e., parking area, storage building) would be setback from this one hundred feet of vegetative buffer.

Implementing stormwater management techniques would minimize impacts to surface water quality in the area. Specifics on stormwater management techniques including design and implementation will be addressed in the design phase of the project. With these restrictions and controls (i.e., BMPs, stormwater management techniques) in place as well as the use of vegetated buffers and setbacks, and minimizing impervious surfaces at the site, negligible effects to water quality are expected.

No Action Alternative: No alterations to the park would occur under the No Action Alternative. This alternative would not create any disturbance to the land or water, and therefore, would result in no impact to water quality.

Conclusion: The proposed project may result in short-term, minor, adverse impacts to water quality during construction. To help minimize the impact, sediment and erosion BMPs would be installed. Long-term, negligible impacts to water quality would be a result of the operation of the VCS. Under the No Action Alternative there would be no impacts to water quality. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Following comparisons of the Preferred Alternative (West Site Alternative) and the East Site Alternative, both alternatives result in similar short-term minor impacts to water quality from construction activities. Even though the park has no other plans for development within Cedar Point, construction of ongoing residential development in the TIMU area is a source for water quality impacts to the region. Considering the cumulative impacts from construction when added to other present and foreseeable future actions on water quality, the incremental cumulative adverse impacts to these resources would be minor and temporary in nature, lasting for the duration of the activity.

4.2.4.3 Floodplains

Impacts Common to West and East Site Alternatives: Long-term, minor, adverse impacts to floodplains would be anticipated due to the construction of the proposed project. Both alternative sites lie within the 100-year floodplain. NPS has adopted guidelines pursuant to Executive Order 11998 stating that it is NPS policy to restore and preserve natural floodplain values and avoid environmental impacts associated with the occupation and modification of floodplains. To minimize the impacts to the floodplain, the entire VCS would be elevated on treated wood poles above the flooding potential. Additionally, pervious surfaces would be used for the parking lots, trails, and roads to prevent impeding the floodplain function. Mitigation measures for floodplains for the proposed project were included and approved in the SOF for Floodplains for the DCP/EA for TIMU (NPS 1997b).

No Action Alternative: The Cedar Point area lies within a 100-yr floodplain. However, under the No Action Alternative no development is planned, resulting in no impacts to the floodplain.

Conclusion: The proposed project would result in long-term, minor, adverse effects to the 100-yr floodplain. However, to minimize impacts to the floodplain the entire VCS would be elevated on treated wood poles above the flooding potential and pervious surfaces would be used for the parking lots, trails, and roads to prevent impeding the floodplain function. There would be no impacts to floodplains under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to floodplains in the Cedar Point area are not anticipated. Implementation of the proposed project is essential to meeting the park's purposes and would only be a minor alteration to existing conditions.

4.3 NATURAL RESOURCES

This section discusses the impacts of the alternatives, including the No Action Alternative, on natural resources including coastal zone management, wetlands, terrestrial resources (vegetation and wildlife), aquatic resources, threatened and endangered species, and unique natural areas.

4.3.1 Coastal Zone

Impacts Common to West and East Site Alternatives: Both alternatives are located within the coastal zone. Short-term, minor, adverse impacts are anticipated to the coastal zone from implementation of the proposed project. There are 23 Statutes that comprise the Florida Coastal Management Program. The FCMP was designed to ensure the wise use and protection of the state's water, cultural, historic, and biological resources. Review of the proposed project by the State of Florida is required to determine whether federal actions conducted in or adjacent to the State of Florida impact the resources of the state's coastal zone and whether impacts to the state's coastal resources are consistent with the enforceable policies contained in the FCMP. A Coastal Zone Management Act Consistency Certification for the proposed project would be completed by the FDEP upon submittal of this EA. The proposed project would be consistent to the maximum extent practicable with the FCMP enforceable policies.

No Action Alternative: Under the No Action Alternative the park would remain in its current state and no action would be taken. There would be no environmental impacts to the coastal zone.

Conclusion: A Coastal Zone Management Act Consistency Certification for the proposed project would be completed by the FDEP. Short-term, minor impacts to the coastal zone are anticipated; however, the proposed project would be consistent with the FCMP enforceable policies. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to the coastal zone may occur depending on the amount of planned coastal development in Duval County and surrounding coastline counties. The construction of the VCS would not cause major alterations to the coastal

zone. The incremental cumulative adverse impacts of the proposed project are minor when added to other past, present, and foreseeable future actions.

4.3.2 Wetlands

Impacts Common to West and East Site Alternatives: The construction of the proposed project would not impact USACE jurisdictional wetlands at either alternative site. The footprints for these project components have been designed to avoid USACE jurisdictional wetlands. Since NPS-defined wetlands are not located at either site, no impact to these wetlands would result from the construction of the proposed project.

No Action Alternative: Under the No Action Alternative, the proposed project would not be constructed and there would be no impact to wetlands.

Conclusion: The proposed project and the No Action Alternative would have no impact on wetlands. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: The minor loss of wetlands from the construction of the pedestrian bridge and boat ramp for the 1997 DCP/EA project would not contribute to the cumulative impacts of this resource, since mitigation is planned to restore the loss of wetlands within the Cedar Point area. Further, the park is not planning any additional development within the Cedar Point area as much of the land in proximity of the proposed construction site is identified as conservation lands.

4.3.3 Terrestrial Resources

4.3.3.1 Vegetation

Preferred Alternative (West Site): The construction and implementation of the VCS would cause short-term, minor, adverse impacts to vegetation. Approximately three acres of vegetation would be cleared for the construction of the VCS and supporting structures. An additional two acres would be cleared for the Access Road, totaling five acres of cleared vegetation. The vegetation cleared would include previously disturbed live oak (*Quercus virginiana*), saw palmetto, and slash pines. Approximately one hundred feet of vegetative buffer would remain adjacent to the Pumpkin Hill Creek marsh in addition to the large existing trees just outside of this buffer.

Exposed soil remaining after construction would be replanted with native early-successional species. Canopy trees would shade parking areas while low growing shrubs would screen the storage shed from visitors and high traffic areas. Overstory species would include laurel oak (*Quercus laurifolia*), live oak, southern red cedar, cabbage palm, and pignut hickory (*Carya glabra*). The understory would consist of American holly (*Ilex opaca*), sparkleberry (*Vaccinium arboretum*), saw palmetto, yaupon holly (*Ilex vomitiria*), and others. Colorful wildflowers would include red columbine (*Aquilegia canadensis*), spiderwort (*Tradexcantia ohiensis*), and seaside goldenrod (*Solidago sempervirens*).

East Site: The construction of the VCS would result in short-term, minor, adverse impacts to vegetation. Approximately less than one acre of vegetation would be removed prior to the construction of the VCS and parking facilities. The design of the site has assured that the large oak trees present throughout the site would remain. It is anticipated that most impacts to vegetation would be to the understory species of the oak hammock community such as saw palmetto and holly. Areas of exposed soil would be replanted with native early-successional vegetation as mentioned above for the West Site.

No Action Alternative: No vegetation would be disturbed under the No Action Alternative. The West Site area would remain a disturbed pine flatland, scrub oak, creek edge habitat and the East Site area would remain an oak hammock community.

Conclusion: Short-term, minor, adverse impacts to vegetation are anticipated at both the East and West Sites due to the clearing of vegetation. All exposed soil would be re-vegetated with native early-successional species. The No Action Alternative would not impact vegetation. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to vegetation are not anticipated. The proposed area affected is approximately five acres, which is relatively small compared to the size of the park.

4.3.3.2 Wildlife

Preferred Alternative (West Site): The proposed project would have short-term, minor, adverse impacts on the wildlife occurring in the pine flatwood, scrub oak, and creek edge habitat at the West Site. The nearby wildlife that nest and forage in the vicinity of the project area may be temporarily disrupted during the construction operations due to the unavoidable noise and human activity. This may cause the species to relocate during the construction process. It is anticipated that these species would be re-established at the site after the completion of the projects. Permanent loss of habitat in areas converted to developed sites would cause a minor impact to wildlife species. It is also anticipated that these species would re-establish in similar habitat nearby.

East Site Alternatives: The proposed project would have short term, minor, adverse impacts on the wildlife occurring within the oak hammock habitat within the East Site. Impacts would be similar to the West Site in that nearby wildlife that use the habitat to nest and forage would temporarily relocate during construction until the activities cease. In addition, permanent loss of habitat in areas converted to developed sites would cause a minor impact wildlife species. It is also anticipated that these species would re-establish in similar habitat nearby.

No Action Alternative: Under the No Action Alternative, there would be no impacts to wildlife. The site would remain in its current state and existing wildlife habitat would remain.

Conclusion: The proposed project would result in short-term, minor, adverse impacts to wildlife species during construction. Wildlife is anticipated to temporarily relocate during this period. The No Action Alternative would not impact wildlife, as the site would remain unchanged. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: The proposed project would not contribute to cumulative impacts to wildlife in the area. The impacts associated with the construction are anticipated to be temporary and minor in nature. The area of disturbance is relatively small in nature when compared to the amount of available habitat and preserved areas within the park.

4.3.4 Aquatic Resources

Impacts Common to West and East Site Alternatives: Short-term, minor, adverse effects to aquatic resources including finfish and shellfish are anticipated during the construction of the VCS and supporting structures. These impacts would result from the potential runoff into nearby waterways during the clearing of vegetation and construction and grading activities. These activities may result in increases in sediment input and turbidity in the surrounding waters which may cause an impact to the aquatic community. However, the species potentially impacted are expected to avoid or leave the areas being disturbed and return after the construction is completed.

No Action Alternative: The park would remain in its current state and the aquatic wildlife habitat would remain unchanged. Therefore, there would be no impact to the aquatic wildlife found within this region.

Conclusion: Impacts to wildlife species include short-term, minor, adverse impacts to fish and shellfish from the potential runoff into nearby waterways from construction and grading activities. The species potentially impacted are expected to avoid or leave the areas being disturbed and return after the construction is completed. The No Action Alternative would not impact aquatic resources. None of the alternatives would cause an impairment of park resources.

Cumulative Impacts: Cumulative impacts to aquatic resources are not anticipated unless other construction activities were to take place along the shoreline within the same timeframe. The park does not have any other projects planned in the Cedar Point area.

4.3.5 Threatened and Endangered Species

The Endangered Species Act defines the terminology used to assess impacts to listed species as follows:

> ***No effect:*** When a proposed action would not affect a listed species or designated critical habitat.

May affect/not likely to adversely affect: Adverse effects on special status species are discountable (i.e., extremely unlikely to occur and not able to be meaningfully measured, detected, or evaluated) or are completely beneficial.

May affect/likely to adversely affect: When an adverse effect to a listed species may occur as a direct or indirect result of proposed projects and the effect either is not discountable or is completely beneficial.

Is likely to jeopardize proposed species/adversely modify proposed critical habitat (impairment): The appropriate conclusion when NPS or USFWS identifies situations in which the proposal could jeopardize the continued existence of a proposed species or adversely modify critical habitat to a species within or outside park boundaries.

In accordance with the federal and state requirements for T&E species, a consultation letter was sent to the USFWS North Florida Field Office, NMFS Southeast Region Office, and the FFWC Northeast Region. Preliminary information about the proposed project was included in the consultation letter. No responses were received from the agencies listed previously. More details and correspondence between NPS and agencies consulted are supplied in Chapter 7 and Appendix A. A copy of this EA will be submitted to USFWS and NMFS for review.

Impacts Common to West and East Site Alternatives: No T&E species have been observed within the project site alternatives. The proposed project is not expected to adversely affect any of the federally listed species mentioned in Section 3.3.5.

No Action Alternative: Areas that may be potential habitat for threatened and endangered species would remain undisturbed with the No Action Alternative as there would be no construction or other ground-disturbing activities. The site would remain in its current use and there would be no effect to threatened or endangered species that may potentially utilize the site.

Conclusion: No notable effects on threatened and endangered species from either of the alternatives are expected at TIMU. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts to threatened and endangered species are anticipated when considered with other past, present, and reasonably foreseeable future actions. Consultation via this EA with Federal and State agencies would be completed prior to commencement of work.

4.3.6 Unique Natural Areas

4.3.6.1 Ecologically Critical Areas

Impacts Common to West and East Site Alternatives: The entire preserve is considered critical habitat for the West Indian Manatee. No impacts to the West Indian manatee critical habitat are anticipated since all of the project components are planned to be constructed on land. All necessary consultation with Federal and State agencies would be completed prior to commencement of work. The Critical Wildlife Area in Florida for the least tern, black skimmer, and laughing gull would not be impacted, as it is not located within the project area.

No Action Alternative: No impacts to critical areas are anticipated under the No Action Alternative.

Conclusion: None of the alternatives would impact this critical habitat. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts to ecologically critical areas are anticipated when considered with other past, present, and reasonably foreseeable future actions. All necessary consultation with Federal and State agencies would be completed prior to commencement of work.

4.3.6.2 Designated Natural Areas

Impacts Common to West and East Site Alternatives: The proposed construction of the VCS and supporting structures would not adversely affect the designated natural areas as it would only affect a small percentage of lands within the larger area designated as the Nassau River-St. Johns River Marshes Aquatic Preserve (NRSJRMAP) which encompasses approximately 57,000 acres. Since the proposed construction is occurring on the uplands, there should be minimal effect to the submerged (sovereign) lands included in the NRSJRMAP.

No Action Alternative: Under the No Action Alternative, the site would remain unchanged. The No Action Alternative would not affect designated natural areas, thus there would be no impacts as a result of this alternative.

Conclusion: The proposed West and East Site Alternatives would not adversely affect designated natural areas. The No Action Alternative would not impact designated natural areas. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts are anticipated to the NRSJRMAP when considered with other past, present, and reasonably foreseeable future actions. The proposed project would only affect a small percentage of lands within the larger area designated as the NRSJRMAP which encompasses almost 57,000 acres.

4.4 CULTURAL RESOURCES

This section describes the potential impacts of the project on archaeological and historical resources at TIMU. The types of effects considered include direct impacts to archaeological and historical sites of TIMU.

4.4.1 Archaeological Resources

Preferred Alternative (West Site): The proposed project would have an impact on archaeological resources. However, the six archaeological sites found within the project site have all been evaluated and are not eligible for inclusion in the NRHP. This has been concurred upon between the NPS and the FL SHPO. A copy of the concurrence letter can be found in Appendix B. Therefore, the proposed project would have no effect on the archaeological resources located in the project area (FL SDHR 2003).

East Site Alternative: The construction and implementation of the VCS (buildings, roads, and trails) would have long-term, major, adverse effects on the archaeological resources at the East Site. Six historic and prehistoric archaeological sites comprising approximately 115 acres are located within the proposed project area. All six sites have been evaluated as being eligible for listing on the NRHP. This has been concurred on between the NPS, FL SHPO and Advisory Council on Historic Preservation. In addition, a programmatic agreement has been established between NPS and the FL SHPO for mitigation of potential adverse impacts to those historic properties. A copy of the programmatic agreement can be found in Appendix B.

No Action Alternative: The No Action Alternative would have no impact on the archaeological resources found at Cedar Point. The park would remain unchanged under the No Action Alternative.

Conclusion: While there are impacts to archaeological sites located within the Preferred Alternative proposed project area, the project would have no effect on these resources because they are not eligible for listing on the NRHP. There would be a long-term, major, adverse impact on the archaeological resources that are eligible for listing on the NRHP found within the East Site. The No Action Alternative would not impact archaeological resources discussed herein because the project would not be built. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: There would be no cumulative impacts to archaeological resources at the park from the Preferred Alternative (West Site). However, implementation of the proposed project at the East Site would result in long-term, major, adverse impacts on the archaeological resources of TIMU possibly resulting in cumulative impacts when considered with other past, present, and reasonably foreseeable future actions.

4.4.2 Historic Resources

Preferred Alternative (West Site): The proposed project has the potential to impact historic resources both archaeological and structural. An historic garbage dump is located within the project boundary and has the potential to be affected. However, this site has been evaluated and is not eligible for inclusion in the NRHP; therefore, the proposed project would have no effect on the historic resources located in the project area.

East Site Alternatives: Long-term, major, adverse impacts to historical resources are anticipated at the East Site. The East Site contains two historical structural sites and two multi-component historic and prehistoric archaeological sites that have the potential to be affected. These sites have been evaluated as eligible for inclusion in the NRHP based on their historic as well as prehistoric components.

No Action Alternative: The No Action Alternative would have no impacts to historic resources found at Cedar Point. The park would remain unchanged under the No Action Alternative.

Conclusion: Although there is one historic site located within the proposed project area of the Preferred Alternative, no adverse effects on historic resources are anticipated since this site is not eligible for inclusion in the NRHP. The East Site would have long-term, major, adverse impacts to the historic resources located within the project area. The No Action Alternative would have no impact to the historic resources at Cedar Point. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: There would be no cumulative impacts to historic resources at TIMU associated with the construction and implementation of the proposed project for the Preferred Alternative. However, the long-term, major, adverse impacts associated with historic resources at the East Site may result in cumulative affects at the park when considered with other past, present, and reasonably foreseeable future actions.

4.5 HUMAN ENVIRONMENT

This section discusses the impacts of the alternatives and No Action Alternative on the human environment including recreation, environmental justice, aesthetics, public health and safety, and energy requirements and conservation.

4.5.1 Recreation

Impacts Common to West and East Site Alternatives: Construction of the proposed VCS facility would create short-term, minor, adverse impacts to recreation (i.e., hiking, boating, and fishing). These impacts would be temporary only lasting the duration of the construction period. Long-term, moderate, beneficial impacts to recreation are anticipated after the implementation of the proposed project. The VCS would attract more guests to the Cedar Point area by providing parking and information about the area.

A concessionaire would provide kayak and bicycle rentals increasing recreational opportunities in the area. The City of Jacksonville would offer a trail system on their neighboring lands, making this a county-wide destination.

No Action Alternative: There would be no impact to the recreational opportunities offered in the Cedar Point area. Recreation in the area would remain unchanged.

Conclusion: The proposed project would result in short-term, minor, adverse impacts to recreation from construction activities. Long-term, moderate, beneficial impacts are anticipated after the implementation of the facility. The VCS would offer an interpretation of the area and a chance for visitors to rent kayaks and bicycles. The No Action Alternative would not have an impact on the recreation in the area. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: The implementation of the VCS would create beneficial cumulative impacts to recreation in the preserve. There would be an increase in the recreational opportunities available within the Cedar Point area.

4.5.2 Environmental Justice

Impacts Common to West and East Site Alternatives: There would be no adverse impacts to minority or low-income communities surrounding TIMU as a result of the proposed project. The population surrounding TIMU does not include higher than average percentages of low-income or minority communities.

No Action Alternative: The No Action Alternative would not result in any impacts to low-income or minority populations.

Conclusion: The construction of VCS and its components would result in indirect beneficial impacts to the region's low-income and minority communities. The VCS would provide a stimulus for recreational and educational opportunities. The No Action Alternative would not result in impacts to the surrounding low-income or minority communities. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: When considering past, present, and reasonably foreseeable future actions occurring near TIMU, cumulative impacts to minority or low-income communities are not anticipated.

4.5.3 Aesthetics

Impacts Common to West and East Site Alternatives: Short-term, minor, adverse impacts to aesthetics are anticipated during the construction phase of the project. These impacts are expected to be temporary and only lasting the duration of the construction period. The areas disturbed at both sites from construction activities would be re-vegetated with native oak hammock community species. The VCS design would be inspired by the Cracker-style, dog trot homes which were scattered across Northern

Florida after it became a state in 1845. Due to landscaping techniques the NPS storage shed would be blocked from the visitors view.

No Action Alternative: The No Action Alternative would not result in changes to the aesthetic appearance of TIMU. The Cedar Point area would remain in its current condition.

Conclusion: The construction activities would create short-term, minor, adverse impacts to the aesthetic appearance of the sites. The No Action Alternative would have no impact on the aesthetics within TIMU. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to aesthetics in the Cedar Point area are expected to be noticeable. Visitors would notice the VCS; however, the new structures (Cracker-style, dog trot homes) would blend in with the historic nature of the area.

4.5.4 Public Health and Safety

Impacts Common to West and East Site Alternatives: The proposed VCS would have a long-term, minor, beneficial impact to public health and safety. Installing public restrooms at the site would contribute to improving public safety in the area. Currently, visitors have no restroom facilities resulting in human waste contaminating the site. Additionally, the proposed project would include building and structure designs that would comply with fire safety, mechanical, and electrical codes and regulations. The VCS would be in compliance with ADA requirements. Handicapped parking spaces would be available and a ramp would be located in the front and rear of the VCS to allow the disabled access to the building.

No-Action Alternative: Under the No Action Alternative, the site would remain unchanged and the VCS would not be implemented. No restrooms would be constructed at Cedar Point under the No Action Alternative resulting in a minor, long-term, adverse impact to public health.

Conclusion: Minor, long-term, beneficial impacts to public health and safety are anticipated. Installing public restrooms at the site would contribute to improving public safety in the area since visitors currently have no restroom facilities resulting in human waste contaminating the site. Additionally, the VCS and associated structures would be in compliance with ADA requirements, fire, mechanical and electrical codes and regulations. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to public health and safety would not be expected from the alternatives presented.

4.5.5 Energy Requirements and Conservation

Impacts Common to West and East Site Alternatives: Minor, long-term increases in energy and natural resource (fuel) requirements would occur from the construction and operation of the VCS regardless of the alternative. NPS management policies require that all facilities be managed, operated, and maintained to minimize energy consumption. The policies also require that new energy-efficient technologies be used where appropriate and cost-effective. Energy consumption and natural resource requirements would minimally increase during all phases of construction and operation of the VCS. During the construction phase, energy requirements would be temporary. However, in order to operate the VCS, minor increases in energy consumption would occur.

The major goal of the mechanical and electrical systems would be to minimize requirements. Equipment and controls would be selected to minimize energy demand charges. Control strategies would be used (i.e., high efficiency motors, energy efficient lighting fixtures and ballasts, and water saving plumbing fixtures) when appropriate.

No Action Alternative: The site would remain in its current state, and no action would be taken. Therefore, there would be no changes to energy requirements and conservation at the site.

Conclusion: Minor, long-term increases in energy and natural resource requirements would occur from the implementation of the VCS. However, wherever possible, energy conservation would be applied and sustainable resources would be used. There would be no impact to energy use and conservation under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to energy use in the region would be considered negligible for this proposed project when added to other past, present, and foreseeable future actions.

4.5.6 Infrastructure

Impacts Common to West and East Site Alternatives: Proposed water use, electricity use, telecommunication use, and waste disposal would not differ among the two alternatives. Electricity and telecommunications is currently available at the East Site; however, no utilities are available at the Preferred Alternative (West Site). Electricity and telecommunications would need to be tied into the existing utilities currently located along Cedar Point Road. Sanitary waste would be treated on site with a sanitary treatment mound system or performance-based septic treatment systems regardless of the alternative. A well for domestic water supply and an associated water treatment facility would need to be installed at both alternative locations. Utility providers would be the same that currently service TIMU. Minor, long-term, adverse impacts would occur to water and electric use regardless of the alternative.

No Action Alternative: There would be no change to the current infrastructure at the Cedar Point area under the No Action Alternative. No impacts to water and electric use at Cedar Point would occur.

Conclusion: The proposed project would result in minor, long-term, adverse impacts to water and electric use at Cedar Point. Additionally, both sites would require construction of a sanitary treatment mound system and a well would need to be installed along with an accompanying water treatment facility. There would be no impact to water and electric use under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to the utility infrastructure in the region would be considered negligible for this proposed project when added to other past, present, and foreseeable future actions.

4.6 VISITOR USE AND EXPERIENCE

Impacts Common to West and East Site Alternatives: Short-term, minor, adverse impacts to visitor use and experience are anticipated during the construction phase of the project. These impacts are expected to be temporary and last only the duration of the construction period.

Currently, TIMU is utilized by the local residents and tourists, mainly for recreation. The visitor experience at TIMU would be enhanced from its current condition through the addition of the VCS in the Cedar Point area. The VCS had the potential to benefit the visitor experience by enhancing the interpretation of the area, improving the visitor access and views of the area, providing restrooms, and providing concessions which would attract visitors for biking and kayaking. The VCS would also provide accessibility for visitors with disabilities. Therefore, long-term, major, beneficial impacts would result from the proposed project to visitor use and experience.

No Action Alternative: Under the No Action Alternative, the Cedar Point area would remain unchanged. There would be no beneficial impacts to visitor use and experience at Cedar Point.

Conclusion: Short-term, minor, adverse impacts to visitor use and experience are expected during the construction phase of the project. During the implementation and operation of the VCS, long-term, major, beneficial impacts are anticipated. The VCS would offer visitors recreational and educational opportunities currently unavailable in the Cedar Point area. There would be no beneficial impacts to visitor use and experience under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: In the long-term, implementation of the proposed project would cumulatively benefit the overall visitor experience in the park.

4.7 PARK OPERATIONS

Impacts Common to West and East Site Alternatives: Current activities within the Cedar Point area would be allowed to continue during the construction period of the proposed project. Short- and long-term, minor, beneficial impacts during construction and implementation of the proposed project would result due to the increase in park presence in the Cedar Point area which would ultimately result in improved security of the area. Additionally, the proposed project would strengthen the partnership between the City of Jacksonville and the NPS. The proposed project offers the opportunity for the NPS to contract with a concessionaire for use of the space. Park maintenance would be increased over current levels during the operation of the VCS. Park employees and/or volunteers would be needed to operate and maintain the VCS.

No Action Alternative: Under the No Action Alternative, park operations would remain unchanged. There would be no benefit to park operations under the No Action Alternative.

Conclusion: The increase in park operations within Cedar Point would result in short- and long-term, minor, beneficial impacts to the park. The increase in park presence would provide more security within the Cedar Point area. The No Action Alternative would not provide any benefits to park operations. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Any project that occurs within TIMU has an effect on park operations; therefore, most of the actions within the proposed project would have some degree of effect on employees and park operations. Park operations would increase over current levels, but would not contribute greatly to cumulative impacts at the park.

4.8 SUMMARY OF IMPACTS

The proposed project would complement the remaining program elements of the 1997 DCP/EA/FONSI providing benefits to visitors such as increased recreational opportunities, interpretation of the Cedar Point area, and accessibility for people with disabilities. Following comparisons of the Preferred Alternative (West Site) and the East Site Alternative both alternatives result in similar resource impacts, except for archeological impacts. The construction period of the project would cause short-term, minor, adverse impacts to soils, air quality, noise, water quality, coastal zone, vegetation, aquatic and terrestrial wildlife, recreation, and aesthetics regardless of the alternative. Long-term, minor, adverse impacts to air quality, noise, water and energy use, and floodplains at each alternative are anticipated.

Long-term, beneficial impacts to recreation, public health and safety, park operations, and visitor use/experience are anticipated. Regardless of the alternative, there would be no effects to T&E species, ecologically critical areas, and designated natural areas associated with the construction and implementation of the proposed project. The East

Site Alternative would cause long-term, major, adverse impacts to the archaeological and historic resources at TIMU.

Under the No Action Alternative, there would be no adverse impacts to the resources discussed previously. Many benefits to the park would never be realized under the No Action Alternative.

Overall, none of the alternatives including the No Action would cause impairment to park resources.

4.0 ENVIRONMENTAL CONSEQUENCES

4.1 CHAPTER OVERVIEW

The NEPA requires the disclosure of environmental impacts associated with the preferred alternative and other alternatives including the No Action Alternative. This section presents the environmental impacts of the preferred alternative (West Site), the East Site, and the No Action Alternative on physical resources, natural resources, cultural resources, human environment, visitor use and experience, and park operations. These analyses provide the basis for comparing the effects of the alternatives. NEPA requires consideration of context, intensity and duration of impacts, indirect impacts, cumulative impacts, and measures to mitigate for impacts. NPS policy also requires that "impairment" of resources be evaluated in all environmental documents.

Chapter 4 describes and analyzes potential environmental effects on the physical, natural and human environment associated with the proposed action alternatives and the No Action Alternative. In addition, cumulative impacts, as defined in regulations developed by the CEQ[1], are discussed throughout this chapter for each resource. A cumulative impact is the impact on the environment that results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of who undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

4.1.1 Statutory Requirements

Primary laws and guidance documents that guided the development of this EA are:

- National Park Service Organic Act of 1916 (16U.S.C. 1-4, et seq.) – Created the National Park Service to promote and regulate the use of national parks, monuments, and reservations, by such means and measures as to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the land in such manner as will leave them unimpaired for the enjoyment of future generations.

- The National Historic Preservation Act of 1966 as amended (16 U.S.C. 470) – To protect and preserve historic districts, sites and structures, and archeological, architectural and cultural resources. Section 106 and Section 110 (36 CFR 800) respectively require consultation with the State Historic Preservation Office and that NPS nominate all eligible resources under its jurisdiction to the National Register of Historic Places.

- The National Environmental Policy Act of 1969 – Public Law 91-190 established a broad national policy to improve the relationship between humans and their environment and sets out policies and goals to ensure that environmental

[1] Code of Federal Regulations, Title 40, Section 1508.7.

considerations are given careful attention and appropriate weight in all decisions of the federal government. This legislation requires and guides the preparation of this EA.

- National Park Service Regulations and Policies – Actions proposed in this document are subject to the NPS Director's Order #28 (Cultural Resource Management), Director's Order #2 (Park Planning), Director's Order #12 (Conservation Planning, Environmental Impact Analysis, and Decision-making), and Director's Order #77 (Natural Resource Protection). Actions are also subject to the service-wide policy document, Management Policies (NPS 2006b).

4.1.2 Methods for Evaluating Environmental Effects

The method of analysis of potential effects is based on the *Director's Order* #12 Handbook [sec 5.4(f)]. Four categories of effects are considered: direct effects, indirect effects, cumulative effects and impairment. The context, duration, and intensity of the impacts must also be defined. Intensity of effects and thresholds of significance are defined for both beneficial and adverse effects. These are further defined in Section 4.1.2.2.

Where quantitative data were not available, best professional judgment was used to determine impacts. In general, the thresholds used come from existing literature, consultation with subject experts, and appropriate agencies.

To analyze impacts, methods were selected to predict the potential change in park resources that would occur with the implementation of the alternatives. Evaluation factors were established for each impact topic to assess the changes in resource conditions of the alternative. The study area was defined to include resources within TIMU and the region that might reasonably be affected. Because resources vary in function and relation to environmental factors, the study area was defined independently for each impact topic.

4.1.2.1 Impact Categories

Three impact categories are used in this analysis and defined below.

Direct Effects – Direct effects are impacts that are caused by the alternative at the same time and in the same place as the action.

Indirect Effects – Indirect effects are impacts caused by the alternatives, that occur later in time or farther in distance than the action.

Impairment - The NPS *Management Policies 2006* requires an analysis of potential effects to determine whether or not actions would impair park resources. The primary purpose of the NPS, as established by the Organic Act and reaffirmed by the General Authorities Act, as amended, is to conserve park resources and values. Impacts to park

resources and values are allowed when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Impairment is an impact that would harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.

NPS Management Policies conducted an analysis to determine whether the magnitude of impacts identified for specific impact topics reached the level of "impairment," as defined. An impact would be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park; or

- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or

- identified as a goal in the park's general management plan or other relevant NPS planning documents.

An impact would be less likely to constitute an impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values and it cannot be further mitigated.

An impact that may, but would not necessarily, lead to impairment may result from visitor activities; NPS administrative activities; or activities undertaken by concessionaires, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park (NPS 2006b).

4.1.2.2 Impact Definitions

Each potential impact is described in terms of its context (site-specific, local, or regional), duration (short-term or long-term), and intensity (negligible, minor, moderate, or major). For the purposes of analysis, the following definitions, unless stated otherwise, are used for all impact topics:

Duration

Short-term impacts: Impacts that might occur during the site preparation and construction phases of the VCS at Cedar Point or in the short-term (1 to 6 months) after implementation of the VCS.

Long-term impacts: Those impacts occurring from the implementation of the VCS at Cedar Point through the next 10 years.

Intensity

Negligible: Impacts would have no measurable or perceptible changes to the resource.

Minor

Adverse: Impacts would be measurable or perceptible but would be localized within a relatively small area. The overall viability of the resource would not be affected and, if left alone, would recover.

Beneficial: Resource improvement would be perceptible, but barely, and localized within a small area of the park.

Moderate

Adverse: Impacts would cause a change in the resource; however, the impact would remain localized.

Beneficial: Resource improvements would be measurable, enhancing the viability of the resource within the park.

Major

Adverse: Impacts to the resource would be substantial, highly noticeable, and permanent.

Beneficial: Resource improvements would be substantial, enhancing the viability of the resource within the park, the surrounding community, and beyond.

4.2 PHYSICAL RESOURCES

This section discusses the impacts of the alternatives, including the No Action Alternative on the physical environment, including soils, air quality, noise, and water resources.

4.2.1 Soils

Preferred Alternative (West Site): The construction phase of the proposed project (includes constructing the VCS building, trailer pad, Access Road, parking area, wastewater treatment system, and trail network) would have short-term, minor, adverse impacts to soils; however these impacts would be localized at the site. Approximately three acres of land would be cleared for construction of the VCS and supporting structures. The Access Road is approximately 3,800 linear feet and would contribute another two acres. Approximately five acres of soil would be impacted from the proposed project. The potential of soil migration would be minimized through the use of sediment and erosion control measures as required by applicable local regulations.

East Site: The construction phase of the proposed project (includes constructing the VCS building, parking area, wastewater treatment system, and trail network) would have short-term, minor, adverse impacts to soils; however these impacts would be localized at the site. Less than one acre of land would be cleared for construction of the VCS and

supporting structures. The potential of soil migration would be minimized through the use of sediment and erosion control measures as required by applicable local regulations.

No Action Alternative: Under the No Action Alternative Cedar Point would remain in its current use, and no action would be taken. Therefore, the No Action Alternative would not result in any environmental impacts to the soils at TIMU.

Conclusion: The proposed project would result in short-term, minor, adverse impacts to soil during construction. The potential for erosion would be minimized through the use of sediment and control measures. The No Action Alternative would not impact the soil at TIMU. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Following comparisons of the Preferred Alternative (West Site Alternative) and the East Site Alternative both alternatives result in similar short-term minor impacts to soil. Cumulative impacts to soils are not anticipated.

4.2.2 Air Quality

Impacts Common to West and East Site Alternatives: The construction phase of the proposed project would have short-term, minor, adverse impacts on air quality. During the construction phase of the project, the operation of construction equipment would generate some criteria pollutant emissions, including carbon monoxide, nitrogen oxides, and particulate matter. However, these emissions would be minimal since the proposed construction activities are temporary. Short-term fugitive gas emissions would be generated primarily from the land-disturbing activities to remove the vegetation and install the proposed VCS and supporting structures. Overall, these impacts would be short-term in nature, lasting only the duration of the construction activities.

Minor, long-term, adverse impacts to air quality would occur during the operation of the VCS from stationary sources. Stationary sources include air conditioning and heating units located in the restrooms, interpretive, and concessionaire areas. TIMU is within Duval County, which is currently in attainment with USEPA air quality criteria for all six criteria pollutants.

No Action Alternative: Under the No Action Alternative, Cedar Point would remain in its current use, which would not cause an increase in air quality pollutants.

Conclusion: The implementation of the proposed project would result in minor, short-term, adverse impacts to air quality due to the construction of the VCS and supporting structures and minor, long-term, adverse impacts during the operation of the VCS from stationary sources. The No Action Alternative would not impact air quality. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to air quality are not anticipated. A short-term, minor impact on air quality during construction and a long-term, minor impact

during operation of the VCS would contribute an undetectable amount of pollutants to the Cedar Point area.

4.2.3 Noise

Impacts Common to West and East Site Alternatives: The construction phase of the project is expected to create minor, short-term, adverse impacts on noise at the park. These impacts would be short-term in nature, lasting for the duration of construction activities. Noise is expected, but noise impacts would be temporary and localized in the vicinity of the construction site and would not disrupt the surrounding area. Construction noise is expected to temporarily impact visitor experience at the park. Short-term sources of noise include the clearing of vegetation and the construction of the VCS and supporting structures. Construction close to the water has the greatest potential to create noise disturbance, as sound can be heard at greater distances over water rather than land. Short-term, temporary noise impacts may cause avian and other wildlife to avoid areas in close proximity to the construction site. These impacts would cease after the construction is completed.

There is a potential for long-term, minor, adverse noise impacts due to the increased activities within the Cedar Point area once the VCS is implemented. Noise associated with the use of the facility may increase relative to current levels from standard building features, additional vehicle traffic, and additional recreational use.

No Action Alternative: Current noise levels within the park would remain unchanged under the No Action Alternative. Current noise sources are from human recreation activities and from natural wildlife sounds.

Conclusion: The implementation of the proposed project would result in short-term, minor, adverse impacts to noise during construction of the VCS. Long-term, minor, adverse impacts would be anticipated after the completion of the VCS due to the increased activities in the area. Current noise sources within the park would remain unchanged under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative noise impacts are not anticipated as there is no additional development planned within the Cedar Point area. The land in this area is mainly used for conservation of natural and historic resources. However, residential development is on-going throughout community areas adjacent to Cedar Point, which is a source for noise impacts to the region.

4.2.4 Water Resources

4.2.4.1 Hydrology

Impacts Common to West and East Site Alternatives: Long-term, negligible, adverse impacts to hydrology are anticipated to occur during the construction and implementation

of the proposed project from the clearing of vegetation. Approximately five acres of land would be cleared at the West Site for the construction of the VCS and supporting structures which includes the Access Road. Less than one acre of land would be cleared at the East Site for the construction of the VCS and supporting structures. However, impacts to hydrology would be minimized by using pervious surfaces for the parking area, trail network, and roads. This would allow rainwater to penetrate through the ground surface and into the water column. Additionally, revegetating and stabilizing the area at the end of the construction period and implementing stormwater control techniques would minimize the impacts to hydrology.

No Action Alternative: The current hydrology within TIMU would remain unchanged under the No Action Alternative. The No Action Alternative would not result in any changes to the hydrology at Cedar Point.

Conclusion: Impacts from the proposed project to hydrology would be negligible. This is due to the use of pervious and semi-pervious surfaces for the parking area, trail network, and roads. There would be no impacts to hydrology under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts to hydrology are anticipated. Pervious and semi-pervious material would be used for roadways, trails, and parking lot surfaces, minimizing impacts to hydrology.

4.2.4.2 Water Quality

Impacts Common to West and East Site Alternatives: The construction phase of the project would create short-term, minor, adverse effects to water quality. These impacts would result from the potential sediment runoff into nearby waterways during the clearing of vegetation and construction and grading activities. These activities may result in increases in sediment input and turbidity in the surrounding waters. Erosion and sediment best management practices (BMPs) would be employed during the construction of the VCS and its components to minimize impacts to Pumpkin Hill Creek.

The operational phase of the proposed project would result in long-term, negligible, adverse impacts to water quality. Impacts to water quality would be minimized by using pervious surfaces for the parking area, trail network, and roads. This would allow rainwater to penetrate through the ground surface and into the water column, which would reduce and/or eliminate runoff into Pumpkin Hill Creek. In addition, the entire VCS would be elevated on treated wood poles further reducing impervious surfaces at the site. Sanitary waste would be treated on site with a sanitary treatment mound system or performance-based septic system. Specifics of the sanitary management system including design and implementation will be addressed in the design phase of the project. Approximately one hundred feet of vegetative buffer would remain adjacent to the Pumpkin Hill Creek marsh. The VCS and associated structures (i.e., parking area, storage building) would be setback from this one hundred feet of vegetative buffer.

Implementing stormwater management techniques would minimize impacts to surface water quality in the area. Specifics on stormwater management techniques including design and implementation will be addressed in the design phase of the project. With these restrictions and controls (i.e., BMPs, stormwater management techniques) in place as well as the use of vegetated buffers and setbacks, and minimizing impervious surfaces at the site, negligible effects to water quality are expected.

No Action Alternative: No alterations to the park would occur under the No Action Alternative. This alternative would not create any disturbance to the land or water, and therefore, would result in no impact to water quality.

Conclusion: The proposed project may result in short-term, minor, adverse impacts to water quality during construction. To help minimize the impact, sediment and erosion BMPs would be installed. Long-term, negligible impacts to water quality would be a result of the operation of the VCS. Under the No Action Alternative there would be no impacts to water quality. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Following comparisons of the Preferred Alternative (West Site Alternative) and the East Site Alternative, both alternatives result in similar short-term minor impacts to water quality from construction activities. Even though the park has no other plans for development within Cedar Point, construction of ongoing residential development in the TIMU area is a source for water quality impacts to the region. Considering the cumulative impacts from construction when added to other present and foreseeable future actions on water quality, the incremental cumulative adverse impacts to these resources would be minor and temporary in nature, lasting for the duration of the activity.

4.2.4.3 Floodplains

Impacts Common to West and East Site Alternatives: Long-term, minor, adverse impacts to floodplains would be anticipated due to the construction of the proposed project. Both alternative sites lie within the 100-year floodplain. NPS has adopted guidelines pursuant to Executive Order 11998 stating that it is NPS policy to restore and preserve natural floodplain values and avoid environmental impacts associated with the occupation and modification of floodplains. To minimize the impacts to the floodplain, the entire VCS would be elevated on treated wood poles above the flooding potential. Additionally, pervious surfaces would be used for the parking lots, trails, and roads to prevent impeding the floodplain function. Mitigation measures for floodplains for the proposed project were included and approved in the SOF for Floodplains for the DCP/EA for TIMU (NPS 1997b).

No Action Alternative: The Cedar Point area lies within a 100-yr floodplain. However, under the No Action Alternative no development is planned, resulting in no impacts to the floodplain.

Conclusion: The proposed project would result in long-term, minor, adverse effects to the 100-yr floodplain. However, to minimize impacts to the floodplain the entire VCS would be elevated on treated wood poles above the flooding potential and pervious surfaces would be used for the parking lots, trails, and roads to prevent impeding the floodplain function. There would be no impacts to floodplains under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to floodplains in the Cedar Point area are not anticipated. Implementation of the proposed project is essential to meeting the park's purposes and would only be a minor alteration to existing conditions.

4.3 NATURAL RESOURCES

This section discusses the impacts of the alternatives, including the No Action Alternative, on natural resources including coastal zone management, wetlands, terrestrial resources (vegetation and wildlife), aquatic resources, threatened and endangered species, and unique natural areas.

4.3.1 Coastal Zone

Impacts Common to West and East Site Alternatives: Both alternatives are located within the coastal zone. Short-term, minor, adverse impacts are anticipated to the coastal zone from implementation of the proposed project. There are 23 Statutes that comprise the Florida Coastal Management Program. The FCMP was designed to ensure the wise use and protection of the state's water, cultural, historic, and biological resources. Review of the proposed project by the State of Florida is required to determine whether federal actions conducted in or adjacent to the State of Florida impact the resources of the state's coastal zone and whether impacts to the state's coastal resources are consistent with the enforceable policies contained in the FCMP. A Coastal Zone Management Act Consistency Certification for the proposed project would be completed by the FDEP upon submittal of this EA. The proposed project would be consistent to the maximum extent practicable with the FCMP enforceable policies.

No Action Alternative: Under the No Action Alternative the park would remain in its current state and no action would be taken. There would be no environmental impacts to the coastal zone.

Conclusion: A Coastal Zone Management Act Consistency Certification for the proposed project would be completed by the FDEP. Short-term, minor impacts to the coastal zone are anticipated; however, the proposed project would be consistent with the FCMP enforceable policies. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to the coastal zone may occur depending on the amount of planned coastal development in Duval County and surrounding coastline counties. The construction of the VCS would not cause major alterations to the coastal

zone. The incremental cumulative adverse impacts of the proposed project are minor when added to other past, present, and foreseeable future actions.

4.3.2 Wetlands

Impacts Common to West and East Site Alternatives: The construction of the proposed project would not impact USACE jurisdictional wetlands at either alternative site. The footprints for these project components have been designed to avoid USACE jurisdictional wetlands. Since NPS-defined wetlands are not located at either site, no impact to these wetlands would result from the construction of the proposed project.

No Action Alternative: Under the No Action Alternative, the proposed project would not be constructed and there would be no impact to wetlands.

Conclusion: The proposed project and the No Action Alternative would have no impact on wetlands. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: The minor loss of wetlands from the construction of the pedestrian bridge and boat ramp for the 1997 DCP/EA project would not contribute to the cumulative impacts of this resource, since mitigation is planned to restore the loss of wetlands within the Cedar Point area. Further, the park is not planning any additional development within the Cedar Point area as much of the land in proximity of the proposed construction site is identified as conservation lands.

4.3.3 Terrestrial Resources

4.3.3.1 Vegetation

Preferred Alternative (West Site): The construction and implementation of the VCS would cause short-term, minor, adverse impacts to vegetation. Approximately three acres of vegetation would be cleared for the construction of the VCS and supporting structures. An additional two acres would be cleared for the Access Road, totaling five acres of cleared vegetation. The vegetation cleared would include previously disturbed live oak (*Quercus virginiana*), saw palmetto, and slash pines. Approximately one hundred feet of vegetative buffer would remain adjacent to the Pumpkin Hill Creek marsh in addition to the large existing trees just outside of this buffer.

Exposed soil remaining after construction would be replanted with native early-successional species. Canopy trees would shade parking areas while low growing shrubs would screen the storage shed from visitors and high traffic areas. Overstory species would include laurel oak (*Quercus laurifolia*), live oak, southern red cedar, cabbage palm, and pignut hickory (*Carya glabra*). The understory would consist of American holly (*Ilex opaca*), sparkleberry (*Vaccinium arboretum*), saw palmetto, yaupon holly (*Ilex vomitiria*), and others. Colorful wildflowers would include red columbine (*Aquilegia canadensis*), spiderwort (*Tradexcantia ohiensis*), and seaside goldenrod (*Solidago sempervirens*).

East Site: The construction of the VCS would result in short-term, minor, adverse impacts to vegetation. Approximately less than one acre of vegetation would be removed prior to the construction of the VCS and parking facilities. The design of the site has assured that the large oak trees present throughout the site would remain. It is anticipated that most impacts to vegetation would be to the understory species of the oak hammock community such as saw palmetto and holly. Areas of exposed soil would be replanted with native early-successional vegetation as mentioned above for the West Site.

No Action Alternative: No vegetation would be disturbed under the No Action Alternative. The West Site area would remain a disturbed pine flatland, scrub oak, creek edge habitat and the East Site area would remain an oak hammock community.

Conclusion: Short-term, minor, adverse impacts to vegetation are anticipated at both the East and West Sites due to the clearing of vegetation. All exposed soil would be re-vegetated with native early-successional species. The No Action Alternative would not impact vegetation. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to vegetation are not anticipated. The proposed area affected is approximately five acres, which is relatively small compared to the size of the park.

4.3.3.2 Wildlife

Preferred Alternative (West Site): The proposed project would have short-term, minor, adverse impacts on the wildlife occurring in the pine flatwood, scrub oak, and creek edge habitat at the West Site. The nearby wildlife that nest and forage in the vicinity of the project area may be temporarily disrupted during the construction operations due to the unavoidable noise and human activity. This may cause the species to relocate during the construction process. It is anticipated that these species would be re-established at the site after the completion of the projects. Permanent loss of habitat in areas converted to developed sites would cause a minor impact to wildlife species. It is also anticipated that these species would re-establish in similar habitat nearby.

East Site Alternatives: The proposed project would have short term, minor, adverse impacts on the wildlife occurring within the oak hammock habitat within the East Site. Impacts would be similar to the West Site in that nearby wildlife that use the habitat to nest and forage would temporarily relocate during construction until the activities cease. In addition, permanent loss of habitat in areas converted to developed sites would cause a minor impact wildlife species. It is also anticipated that these species would re-establish in similar habitat nearby.

No Action Alternative: Under the No Action Alternative, there would be no impacts to wildlife. The site would remain in its current state and existing wildlife habitat would remain.

Conclusion: The proposed project would result in short-term, minor, adverse impacts to wildlife species during construction. Wildlife is anticipated to temporarily relocate during this period. The No Action Alternative would not impact wildlife, as the site would remain unchanged. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: The proposed project would not contribute to cumulative impacts to wildlife in the area. The impacts associated with the construction are anticipated to be temporary and minor in nature. The area of disturbance is relatively small in nature when compared to the amount of available habitat and preserved areas within the park.

4.3.4 Aquatic Resources

Impacts Common to West and East Site Alternatives: Short-term, minor, adverse effects to aquatic resources including finfish and shellfish are anticipated during the construction of the VCS and supporting structures. These impacts would result from the potential runoff into nearby waterways during the clearing of vegetation and construction and grading activities. These activities may result in increases in sediment input and turbidity in the surrounding waters which may cause an impact to the aquatic community. However, the species potentially impacted are expected to avoid or leave the areas being disturbed and return after the construction is completed.

No Action Alternative: The park would remain in its current state and the aquatic wildlife habitat would remain unchanged. Therefore, there would be no impact to the aquatic wildlife found within this region.

Conclusion: Impacts to wildlife species include short-term, minor, adverse impacts to fish and shellfish from the potential runoff into nearby waterways from construction and grading activities. The species potentially impacted are expected to avoid or leave the areas being disturbed and return after the construction is completed. The No Action Alternative would not impact aquatic resources. None of the alternatives would cause an impairment of park resources.

Cumulative Impacts: Cumulative impacts to aquatic resources are not anticipated unless other construction activities were to take place along the shoreline within the same timeframe. The park does not have any other projects planned in the Cedar Point area.

4.3.5 Threatened and Endangered Species

The Endangered Species Act defines the terminology used to assess impacts to listed species as follows:

> ***No effect:*** When a proposed action would not affect a listed species or designated critical habitat.

May affect/not likely to adversely affect: Adverse effects on special status species are discountable (i.e., extremely unlikely to occur and not able to be meaningfully measured, detected, or evaluated) or are completely beneficial.

May affect/likely to adversely affect: When an adverse effect to a listed species may occur as a direct or indirect result of proposed projects and the effect either is not discountable or is completely beneficial.

Is likely to jeopardize proposed species/adversely modify proposed critical habitat (impairment): The appropriate conclusion when NPS or USFWS identifies situations in which the proposal could jeopardize the continued existence of a proposed species or adversely modify critical habitat to a species within or outside park boundaries.

In accordance with the federal and state requirements for T&E species, a consultation letter was sent to the USFWS North Florida Field Office, NMFS Southeast Region Office, and the FFWC Northeast Region. Preliminary information about the proposed project was included in the consultation letter. No responses were received from the agencies listed previously. More details and correspondence between NPS and agencies consulted are supplied in Chapter 7 and Appendix A. A copy of this EA will be submitted to USFWS and NMFS for review.

Impacts Common to West and East Site Alternatives: No T&E species have been observed within the project site alternatives. The proposed project is not expected to adversely affect any of the federally listed species mentioned in Section 3.3.5.

No Action Alternative: Areas that may be potential habitat for threatened and endangered species would remain undisturbed with the No Action Alternative as there would be no construction or other ground-disturbing activities. The site would remain in its current use and there would be no effect to threatened or endangered species that may potentially utilize the site.

Conclusion: No notable effects on threatened and endangered species from either of the alternatives are expected at TIMU. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts to threatened and endangered species are anticipated when considered with other past, present, and reasonably foreseeable future actions. Consultation via this EA with Federal and State agencies would be completed prior to commencement of work.

4.3.6 Unique Natural Areas

4.3.6.1 Ecologically Critical Areas

Impacts Common to West and East Site Alternatives: The entire preserve is considered critical habitat for the West Indian Manatee. No impacts to the West Indian manatee critical habitat are anticipated since all of the project components are planned to be constructed on land. All necessary consultation with Federal and State agencies would be completed prior to commencement of work. The Critical Wildlife Area in Florida for the least tern, black skimmer, and laughing gull would not be impacted, as it is not located within the project area.

No Action Alternative: No impacts to critical areas are anticipated under the No Action Alternative.

Conclusion: None of the alternatives would impact this critical habitat. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts to ecologically critical areas are anticipated when considered with other past, present, and reasonably foreseeable future actions. All necessary consultation with Federal and State agencies would be completed prior to commencement of work.

4.3.6.2 Designated Natural Areas

Impacts Common to West and East Site Alternatives: The proposed construction of the VCS and supporting structures would not adversely affect the designated natural areas as it would only affect a small percentage of lands within the larger area designated as the Nassau River-St. Johns River Marshes Aquatic Preserve (NRSJRMAP) which encompasses approximately 57,000 acres. Since the proposed construction is occurring on the uplands, there should be minimal effect to the submerged (sovereign) lands included in the NRSJRMAP.

No Action Alternative: Under the No Action Alternative, the site would remain unchanged. The No Action Alternative would not affect designated natural areas, thus there would be no impacts as a result of this alternative.

Conclusion: The proposed West and East Site Alternatives would not adversely affect designated natural areas. The No Action Alternative would not impact designated natural areas. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: No cumulative impacts are anticipated to the NRSJRMAP when considered with other past, present, and reasonably foreseeable future actions. The proposed project would only affect a small percentage of lands within the larger area designated as the NRSJRMAP which encompasses almost 57,000 acres.

4.4 CULTURAL RESOURCES

This section describes the potential impacts of the project on archaeological and historical resources at TIMU. The types of effects considered include direct impacts to archaeological and historical sites of TIMU.

4.4.1 Archaeological Resources

Preferred Alternative (West Site): The proposed project would have an impact on archaeological resources. However, the six archaeological sites found within the project site have all been evaluated and are not eligible for inclusion in the NRHP. This has been concurred upon between the NPS and the FL SHPO. A copy of the concurrence letter can be found in Appendix B. Therefore, the proposed project would have no effect on the archaeological resources located in the project area (FL SDHR 2003).

East Site Alternative: The construction and implementation of the VCS (buildings, roads, and trails) would have long-term, major, adverse effects on the archaeological resources at the East Site. Six historic and prehistoric archaeological sites comprising approximately 115 acres are located within the proposed project area. All six sites have been evaluated as being eligible for listing on the NRHP. This has been concurred on between the NPS, FL SHPO and Advisory Council on Historic Preservation. In addition, a programmatic agreement has been established between NPS and the FL SHPO for mitigation of potential adverse impacts to those historic properties. A copy of the programmatic agreement can be found in Appendix B.

No Action Alternative: The No Action Alternative would have no impact on the archaeological resources found at Cedar Point. The park would remain unchanged under the No Action Alternative.

Conclusion: While there are impacts to archaeological sites located within the Preferred Alternative proposed project area, the project would have no effect on these resources because they are not eligible for listing on the NRHP. There would be a long-term, major, adverse impact on the archaeological resources that are eligible for listing on the NRHP found within the East Site. The No Action Alternative would not impact archaeological resources discussed herein because the project would not be built. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: There would be no cumulative impacts to archaeological resources at the park from the Preferred Alternative (West Site). However, implementation of the proposed project at the East Site would result in long-term, major, adverse impacts on the archaeological resources of TIMU possibly resulting in cumulative impacts when considered with other past, present, and reasonably foreseeable future actions.

4.4.2 Historic Resources

Preferred Alternative (West Site): The proposed project has the potential to impact historic resources both archaeological and structural. An historic garbage dump is located within the project boundary and has the potential to be affected. However, this site has been evaluated and is not eligible for inclusion in the NRHP; therefore, the proposed project would have no effect on the historic resources located in the project area.

East Site Alternatives: Long-term, major, adverse impacts to historical resources are anticipated at the East Site. The East Site contains two historical structural sites and two multi-component historic and prehistoric archaeological sites that have the potential to be affected. These sites have been evaluated as eligible for inclusion in the NRHP based on their historic as well as prehistoric components.

No Action Alternative: The No Action Alternative would have no impacts to historic resources found at Cedar Point. The park would remain unchanged under the No Action Alternative.

Conclusion: Although there is one historic site located within the proposed project area of the Preferred Alternative, no adverse effects on historic resources are anticipated since this site is not eligible for inclusion in the NRHP. The East Site would have long-term, major, adverse impacts to the historic resources located within the project area. The No Action Alternative would have no impact to the historic resources at Cedar Point. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: There would be no cumulative impacts to historic resources at TIMU associated with the construction and implementation of the proposed project for the Preferred Alternative. However, the long-term, major, adverse impacts associated with historic resources at the East Site may result in cumulative affects at the park when considered with other past, present, and reasonably foreseeable future actions.

4.5 HUMAN ENVIRONMENT

This section discusses the impacts of the alternatives and No Action Alternative on the human environment including recreation, environmental justice, aesthetics, public health and safety, and energy requirements and conservation.

4.5.1 Recreation

Impacts Common to West and East Site Alternatives: Construction of the proposed VCS facility would create short-term, minor, adverse impacts to recreation (i.e., hiking, boating, and fishing). These impacts would be temporary only lasting the duration of the construction period. Long-term, moderate, beneficial impacts to recreation are anticipated after the implementation of the proposed project. The VCS would attract more guests to the Cedar Point area by providing parking and information about the area.

A concessionaire would provide kayak and bicycle rentals increasing recreational opportunities in the area. The City of Jacksonville would offer a trail system on their neighboring lands, making this a county-wide destination.

No Action Alternative: There would be no impact to the recreational opportunities offered in the Cedar Point area. Recreation in the area would remain unchanged.

Conclusion: The proposed project would result in short-term, minor, adverse impacts to recreation from construction activities. Long-term, moderate, beneficial impacts are anticipated after the implementation of the facility. The VCS would offer an interpretation of the area and a chance for visitors to rent kayaks and bicycles. The No Action Alternative would not have an impact on the recreation in the area. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: The implementation of the VCS would create beneficial cumulative impacts to recreation in the preserve. There would be an increase in the recreational opportunities available within the Cedar Point area.

4.5.2 Environmental Justice

Impacts Common to West and East Site Alternatives: There would be no adverse impacts to minority or low-income communities surrounding TIMU as a result of the proposed project. The population surrounding TIMU does not include higher than average percentages of low-income or minority communities.

No Action Alternative: The No Action Alternative would not result in any impacts to low-income or minority populations.

Conclusion: The construction of VCS and its components would result in indirect beneficial impacts to the region's low-income and minority communities. The VCS would provide a stimulus for recreational and educational opportunities. The No Action Alternative would not result in impacts to the surrounding low-income or minority communities. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: When considering past, present, and reasonably foreseeable future actions occurring near TIMU, cumulative impacts to minority or low-income communities are not anticipated.

4.5.3 Aesthetics

Impacts Common to West and East Site Alternatives: Short-term, minor, adverse impacts to aesthetics are anticipated during the construction phase of the project. These impacts are expected to be temporary and only lasting the duration of the construction period. The areas disturbed at both sites from construction activities would be re-vegetated with native oak hammock community species. The VCS design would be inspired by the Cracker-style, dog trot homes which were scattered across Northern

Florida after it became a state in 1845. Due to landscaping techniques the NPS storage shed would be blocked from the visitors view.

No Action Alternative: The No Action Alternative would not result in changes to the aesthetic appearance of TIMU. The Cedar Point area would remain in its current condition.

Conclusion: The construction activities would create short-term, minor, adverse impacts to the aesthetic appearance of the sites. The No Action Alternative would have no impact on the aesthetics within TIMU. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to aesthetics in the Cedar Point area are expected to be noticeable. Visitors would notice the VCS; however, the new structures (Cracker-style, dog trot homes) would blend in with the historic nature of the area.

4.5.4 Public Health and Safety

Impacts Common to West and East Site Alternatives: The proposed VCS would have a long-term, minor, beneficial impact to public health and safety. Installing public restrooms at the site would contribute to improving public safety in the area. Currently, visitors have no restroom facilities resulting in human waste contaminating the site. Additionally, the proposed project would include building and structure designs that would comply with fire safety, mechanical, and electrical codes and regulations. The VCS would be in compliance with ADA requirements. Handicapped parking spaces would be available and a ramp would be located in the front and rear of the VCS to allow the disabled access to the building.

No-Action Alternative: Under the No Action Alternative, the site would remain unchanged and the VCS would not be implemented. No restrooms would be constructed at Cedar Point under the No Action Alternative resulting in a minor, long-term, adverse impact to public health.

Conclusion: Minor, long-term, beneficial impacts to public health and safety are anticipated. Installing public restrooms at the site would contribute to improving public safety in the area since visitors currently have no restroom facilities resulting in human waste contaminating the site. Additionally, the VCS and associated structures would be in compliance with ADA requirements, fire, mechanical and electrical codes and regulations. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to public health and safety would not be expected from the alternatives presented.

4.5.5 Energy Requirements and Conservation

Impacts Common to West and East Site Alternatives: Minor, long-term increases in energy and natural resource (fuel) requirements would occur from the construction and operation of the VCS regardless of the alternative. NPS management policies require that all facilities be managed, operated, and maintained to minimize energy consumption. The policies also require that new energy-efficient technologies be used where appropriate and cost-effective. Energy consumption and natural resource requirements would minimally increase during all phases of construction and operation of the VCS. During the construction phase, energy requirements would be temporary. However, in order to operate the VCS, minor increases in energy consumption would occur.

The major goal of the mechanical and electrical systems would be to minimize requirements. Equipment and controls would be selected to minimize energy demand charges. Control strategies would be used (i.e., high efficiency motors, energy efficient lighting fixtures and ballasts, and water saving plumbing fixtures) when appropriate.

No Action Alternative: The site would remain in its current state, and no action would be taken. Therefore, there would be no changes to energy requirements and conservation at the site.

Conclusion: Minor, long-term increases in energy and natural resource requirements would occur from the implementation of the VCS. However, wherever possible, energy conservation would be applied and sustainable resources would be used. There would be no impact to energy use and conservation under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to energy use in the region would be considered negligible for this proposed project when added to other past, present, and foreseeable future actions.

4.5.6 Infrastructure

Impacts Common to West and East Site Alternatives: Proposed water use, electricity use, telecommunication use, and waste disposal would not differ among the two alternatives. Electricity and telecommunications is currently available at the East Site; however, no utilities are available at the Preferred Alternative (West Site). Electricity and telecommunications would need to be tied into the existing utilities currently located along Cedar Point Road. Sanitary waste would be treated on site with a sanitary treatment mound system or performance-based septic treatment systems regardless of the alternative. A well for domestic water supply and an associated water treatment facility would need to be installed at both alternative locations. Utility providers would be the same that currently service TIMU. Minor, long-term, adverse impacts would occur to water and electric use regardless of the alternative.

No Action Alternative: There would be no change to the current infrastructure at the Cedar Point area under the No Action Alternative. No impacts to water and electric use at Cedar Point would occur.

Conclusion: The proposed project would result in minor, long-term, adverse impacts to water and electric use at Cedar Point. Additionally, both sites would require construction of a sanitary treatment mound system and a well would need to be installed along with an accompanying water treatment facility. There would be no impact to water and electric use under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Cumulative impacts to the utility infrastructure in the region would be considered negligible for this proposed project when added to other past, present, and foreseeable future actions.

4.6 VISITOR USE AND EXPERIENCE

Impacts Common to West and East Site Alternatives: Short-term, minor, adverse impacts to visitor use and experience are anticipated during the construction phase of the project. These impacts are expected to be temporary and last only the duration of the construction period.

Currently, TIMU is utilized by the local residents and tourists, mainly for recreation. The visitor experience at TIMU would be enhanced from its current condition through the addition of the VCS in the Cedar Point area. The VCS had the potential to benefit the visitor experience by enhancing the interpretation of the area, improving the visitor access and views of the area, providing restrooms, and providing concessions which would attract visitors for biking and kayaking. The VCS would also provide accessibility for visitors with disabilities. Therefore, long-term, major, beneficial impacts would result from the proposed project to visitor use and experience.

No Action Alternative: Under the No Action Alternative, the Cedar Point area would remain unchanged. There would be no beneficial impacts to visitor use and experience at Cedar Point.

Conclusion: Short-term, minor, adverse impacts to visitor use and experience are expected during the construction phase of the project. During the implementation and operation of the VCS, long-term, major, beneficial impacts are anticipated. The VCS would offer visitors recreational and educational opportunities currently unavailable in the Cedar Point area. There would be no beneficial impacts to visitor use and experience under the No Action Alternative. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: In the long-term, implementation of the proposed project would cumulatively benefit the overall visitor experience in the park.

4.7 PARK OPERATIONS

Impacts Common to West and East Site Alternatives: Current activities within the Cedar Point area would be allowed to continue during the construction period of the proposed project. Short- and long-term, minor, beneficial impacts during construction and implementation of the proposed project would result due to the increase in park presence in the Cedar Point area which would ultimately result in improved security of the area. Additionally, the proposed project would strengthen the partnership between the City of Jacksonville and the NPS. The proposed project offers the opportunity for the NPS to contract with a concessionaire for use of the space. Park maintenance would be increased over current levels during the operation of the VCS. Park employees and/or volunteers would be needed to operate and maintain the VCS.

No Action Alternative: Under the No Action Alternative, park operations would remain unchanged. There would be no benefit to park operations under the No Action Alternative.

Conclusion: The increase in park operations within Cedar Point would result in short- and long-term, minor, beneficial impacts to the park. The increase in park presence would provide more security within the Cedar Point area. The No Action Alternative would not provide any benefits to park operations. None of the alternatives would cause impairment to park resources.

Cumulative Impacts: Any project that occurs within TIMU has an effect on park operations; therefore, most of the actions within the proposed project would have some degree of effect on employees and park operations. Park operations would increase over current levels, but would not contribute greatly to cumulative impacts at the park.

4.8 SUMMARY OF IMPACTS

The proposed project would complement the remaining program elements of the 1997 DCP/EA/FONSI providing benefits to visitors such as increased recreational opportunities, interpretation of the Cedar Point area, and accessibility for people with disabilities. Following comparisons of the Preferred Alternative (West Site) and the East Site Alternative both alternatives result in similar resource impacts, except for archeological impacts. The construction period of the project would cause short-term, minor, adverse impacts to soils, air quality, noise, water quality, coastal zone, vegetation, aquatic and terrestrial wildlife, recreation, and aesthetics regardless of the alternative. Long-term, minor, adverse impacts to air quality, noise, water and energy use, and floodplains at each alternative are anticipated.

Long-term, beneficial impacts to recreation, public health and safety, park operations, and visitor use/experience are anticipated. Regardless of the alternative, there would be no effects to T&E species, ecologically critical areas, and designated natural areas associated with the construction and implementation of the proposed project. The East

Site Alternative would cause long-term, major, adverse impacts to the archaeological and historic resources at TIMU.

Under the No Action Alternative, there would be no adverse impacts to the resources discussed previously. Many benefits to the park would never be realized under the No Action Alternative.

Overall, none of the alternatives including the No Action would cause impairment to park resources.

5.0 MITIGATION MEASURES

5.1 WATER QUALITY

Because disturbed soils are susceptible to erosion until re-vegetation takes place, best management practices and sediment and erosion control measures would be used during the implementation of the proposed project. Sediment and control measures would include silt fences and/or sand bags and stormwater management techniques. Additionally, surfaces for parking areas, access roads, and trails would be made with pervious or semipervious substrate to reduce the amount of runoff.

5.2 FLOODPLAINS

The design of structures within the floodplain would incorporate methods for minimizing flood damage, as contained in the National Flood Insurance Program "*Floodplain Management Criteria for Flood-Prone Areas*" (CFR 44, 60.3).

Flood mitigation includes methods for protecting life and minimizing storm damage. Mitigation measures include the elevation of the VCS on treated wood poles (8 to 12 inches in diameter). The elevation of the VCS would raise the building above the flooding potential of the area. Additionally, impacts to the floodplain would be minimized by using pervious or semipervious surfaces on trails, roadways, and parking areas. These mitigation measures would minimize the impact of the proposed action of the floodplain. A SOF for floodplains was prepared for the proposed project on September 1, 1995 which documented the mitigation measures for the floodplain (NPS 1997b).

6.0 ENVIRONMENTAL COMMITMENTS

6.1 UNAVOIDABLE ADVERSE EFFECTS

Unavoidable adverse effects are impacts that cannot be fully mitigated or avoided. The following unavoidable adverse effects would occur from the implementation of the proposed project:

- Construction within a coastal zone;
- Minor, short-term impacts to terrestrial and aquatic wildlife;
- Minor, short-term impacts to vegetation;
- Minor, short-term impacts to physical resources (soil, air quality, water quality, and noise).

6.2 IRREVERSIBLE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

This section discusses irreversible and irretrievable commitments of resources. A resource commitment is considered irreversible when primary or secondary impacts from its use limit future options. Irreversible commitment applies primarily to nonrenewable resources, such as minerals or cultural resources, and to those resources that are only renewable over long time spans, such as soil productivity. A resource commitment is considered irretrievable when the use or consumption of the resource is neither renewable nor recoverable for use by future generations.

Irreversible

Irreversible commitments are those that cannot be reversed, except perhaps in the extreme long term. Irreversible environmental changes to natural resources associated with the implementation of the VCS would include the commitment of energy as a result of the construction, operation, and maintenance of the VCS facility.

Irretrievable

An irretrievable commitment of resources refers to the effects to resources that, once gone, cannot be replaced. The proposed project is not expected to cause irretrievable commitments of resources at the park.

6.3 SUMMARY OF ENVIRONMENTAL COMMITMENTS

Several unavoidable adverse effects would occur to the coastal zone, terrestrial and aquatic wildlife, vegetation, soil, air and water quality, and noise from the implementation of the proposed project; however, these effects would be minor and temporary. Additionally, an irreversible commitment of energy associated with the implementation of the VCS is expected; however, wherever possible, energy conservation would be applied and sustainable resources would be used.

7.0 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

Scoping is an effort to involve agencies and the general public in determining the scope of issues to be addressed in the environmental document. Among other tasks, scoping determines important issues and eliminates issues determined to be not important; allocates assignments among the interdisciplinary team members and/or participating agents; identifies related projects and associated documents; identifies other permits, surveys, consultations, etc. required by other agencies; and creates a schedule that allows adequate time to prepare and distribute the environmental document for public review and comment before a final decision is made. Scoping includes consultation with any interested agency, or any agency with jurisdiction by law or expertise to obtain early input.

7.1 AGENCY AND STAKEHOLDER CONSULTATION

A consultation letter was mailed to approximately 51 local and federal agencies and stakeholders on January 31, 2007 requesting consultation and comments regarding the proposed project at TIMU. A list of agencies and stakeholders that received the consultation letter and a copy of the consultation letter can be found in Appendix A. Responses were received from three departments of the City of Jacksonville: the Office of the City Council; the Planning and Development Department; and Department of Parks, Recreation, Entertainment, and Conservation. Copies of these responses are included in Appendix A. Overall, the responses supported the proposed project. The Planning and Development Department finds that the proposed project is consistent with the goals, objectives, and policies of the Conservation/Coastal Management Element, the Recreation and Open Space Element, and the Future Land Use Element of the City's 2010 Comprehensive Plan. The Department of Parks, Recreation, Entertainment, and Conservation finds that the proposed project is consistent with recreation and preservation goals held by the City of Jacksonville Preservation Project, which manages 450 acres of property adjacent to the NPS Cedar Point parcel.

A response letter was also received from the Florida Department of Environmental Protection (DEP). Based on the limited information in the socping letter, the DEP believes the proposed project will be consistent with the Coastal Zone Management Program. Further the DEP recommends the installation of a performance-based septic treatment system rather than a conventional septic system. They will review to draft EA to evaluate stormwater management systems, impervious surfaces and vegetative setback from wetlands.

7.2 PUBLIC SCOPING

A newsletter will be mailed to individuals, organizations, stakeholders, and agencies in order to notify the public of the availability of the Draft EA for comment. The draft EA will be available on the preserve's web site and hard copies will be available for review at the Ft. Caroline Visitor Center, Kingsley Plantation and Preserve Headquarters. The comment period for the EA will be for 30 days.

Comments on the newsletter and EA will be summarized and responded to in an errata sheet to be appended to the FONSI and EA. Following the completion of the EA, the FONSI will be signed and dated by the NPS Regional Director.

8.0 LIST OF PREPARERS

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9.0 REFERENCES

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APPENDIX A

AGENCY CONSULTATION

APPENDIX A-1

EXAMPLE AGENCY LETTER

United States Department of the Interior

National Park Service
Timucuan Ecological and Historic Preserve
Fort Caroline National Memorial
13165 Mt. Pleasant Road
Jacksonville, Florida 32225

IN REPLY REFER TO:

L7617 (TIMU-RM)

January 31, 2007

TO THE ADDRESSES ON THE ENCLOSED LIST:

In accordance with the National Environmental Policy Act of 1969 (Public Law 91-190, as amended) the National Park Service (NPS), Timucuan Ecological and Historic Preserve is preparing an environmental assessment in conjunction with the proposed development of visitor service facilities at Cedar Point. Consisting of approximately 400 acres, Cedar Point is located on the south end of Black Hammock Island in northeastern Duval County and within the city limits of Jacksonville. See attached location map.

Cedar Point was acquired by the NPS in 1996 and is the site of a former fishing camp. Little remains from this commercial operation except a concrete boat ramp and limited parking. Natural features include areas of oak hammock, former pine plantations and salt marshes bordering Pumpkin Hill and Horseshoe Creeks.

In the 1997, the NPS completed a Development Concept Plan and Environmental Assessment calling for limited development of visitor related facilities. While some aspects of this 1997 plan have been utilized, such as upcoming boat ramp repairs, recent archeological investigations have shown significant prehistoric and historical resources in the vicinity of the buildings proposed in that 1997 document. Therefore, we have decided to prepare a new environmental assessment.

An environmental assessment is being prepared to evaluate the potential effects of developing various visitor facilities. Parking areas and visitor contact buildings are being considered. Potential activities include hiking, bicycling, bird watching, fishing, canoeing/kayaking, and picnicking. The potential of adding concession-operated facilities for rental of bicycles, kayaks and canoes as well as sales of limited food items (soft drinks and packaged snacks) will be addressed.

The NPS owned property is adjacent to approximately 450 acres owned by the City of Jacksonville. Access to the city property for hiking, bird watching and bicycling will be via a proposed pedestrian bridge crossing Pumpkin Hill Creek and will be considered in this evaluation.

We request your comments regarding issues you might have regarding this proposed project. Comments can be sent by mail or electronically. However, we cannot accept any comments sent via fax. Please mail any comments on this project to:

Richard Bryant
Timucuan Preserve
13165 Mt. Pleasant Road
Jacksonville, FL 32225

Phone (904) 221-7567 x15
E-mail: Richard_Bryant@nps.gov

You may also submit your comments electronically via the Planning, Environment, and Public Comment website at http://parkplanning.nps.gov/timu. Please be sure to include your full name and email address, if available, with the comments so we may add you to our mailing list for information on the planning process.

Before including your address, phone number, email address, or other personal identifying information in your comments (hard copy or electronic), you should be aware that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Thank you for your interest in this project.

Sincerely,

Barbara Goodman

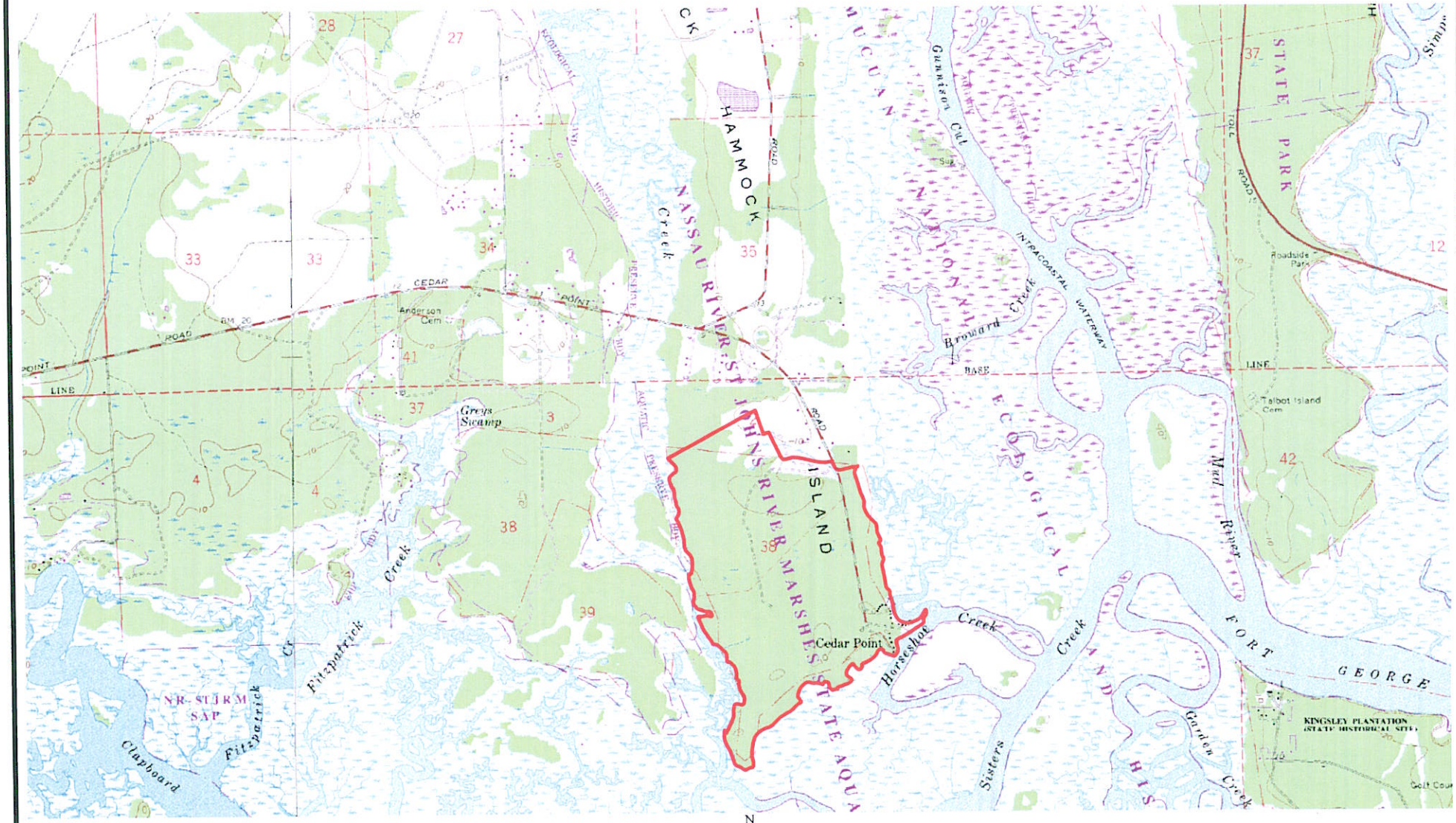
Barbara Goodman
Superintendent

Attachments: location map and mailing list

Timucuan Ecological & Historic Preserve
Florida

National Park Service
U.S. Department of the Interior

Cedar Point



Produced by: Brian Loadholtz

January 2007

FILE: C:/Documents and Settings/BLoadholtz/My Documents/CP_map_project_5.mxd

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Jacksonville, FL 32202

Tim Breen
FL FWCC
1239 SW 10th Street
Ocala, FL 34474-2797

Neil Armingeon
St. Johns Riverkeeper
2800 University Blvd. N
Jacksonville, FL 32211

Mike Webster
FL Wildlife Federation
1658 Geraldine Dr.
Jacksonville, FL 32205

Ken John
St. Johns River Water Management District
7775 Baymeadows Way Ste 102
Jacksonville, FL 32256

Honorable John Peyton
City of Jacksonville
117 W. Duval St. 4th Floor, City Hall at St. James
Jacksonville, FL 32202

Lynette Self
117 W. Duval St. Ste 425
Jacksonville, FL 32202

Warren Alvarez
117 W. Duval St. Ste 425
Jacksonville, FL 32202

Susan Wiles
Office of the Mayor
117 W. Duval St. Ste 400
Jacksonville, FL 32202

Field Supervisor
US Fish & Wildlife
6620 Southpoint Dr. S Ste 310
Jacksonville, FL 32216

George Getsinger
National Marine Fisheries Service
9741 Ocean Shore Blvd.
St. Augustine, FL 32080

Steve Miller
St. Johns River Water Management District
P.O. Box 1429
Palatka, FL 32178-1429

Dana Morton
COJ /Environmental. Quality Division
117 W. Duval St. Suite 225
Jacksonville, FL 32202

Mike Shirley
Guana Tolomato Matanzas National Estuarine Research Reserve
505 Guana River Rd
Ponte Vedra, FL 32082

Honorable Stan Jordan
District 17
9210 Arlington Expressway
Jacksonville, FL 32225-6560

Sierra Club - Florida Chapter
475 Central Ave. Ste M-1
St. Petersburg, FL 32309

Lane Welch
NE Florida Environmental Coalition
4425 Gadsden Court
Jacksonville, FL 32207

Honorable Mel Martinez
United States Senate
1301 Riverpoint Blvd. Ste 2218
Jacksonville, FL 32207

Greg Strong
Florida Dept. of Environmental Protection
7825 Baymeadows Way Ste. B200
Jacksonville, FL 32256

Osvaldo Collazo
U.S. Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232

Area Captain
Florida Fish and Wildlife Commission
2510 Second Ave. North
Jacksonville, FL 32250

Florida State Clearing House
Florida Dept. of Environmental Protection
3900 Commonwealth Blvd, MS 47
Tallahassee, FL 32399

Tony Orsini
Jacksonville Port Authority
P.O. Box 3005
Jacksonville, FL 32206-0005

Dennis David
Florida Fish and Wildlife Conservation Commission
1239 S.W. 10th Street
Ocala, FL 34474-2797

Regional Administrator
U.S. Environmental Protection Agency - Policy Section
61 Forsyth St.
Atlanta, GA 30303-3104

John Culbreth
851 N. Market St
Jacksonville, FL 32

Tom Larson
Sierra Club NE Florida Group
887 Marshside Ct
Jacksonville Beach, FL 32250 .

Kelley Boree
City Parks, Recreation, Entertainment and Conservation Department
851 N Market St.
Jacksonville, FL 32202

Jennelle Bray
19029 Waterville Road
Jacksonville, FL 32226

Ann Caswell
15648 Shark Rd. W
Jacksonville, FL 32226

Amanda Loach
Northeast FL Regional Planning Council
6850 Belfort Oaks Place
Jacksonville, FL 32216

President
Friends of Talbot Islands State Parks
12157 Heckscher Drive
Jacksonville, FL 32226

APPENDIX A-2

AGENCY RESPONSE LETTERS

DEPARTMENT OF PARKS, RECREATION, ENTERTAINMENT AND CONSERVATION

Jacksonville
Where Florida Begins.

February 21, 2007

Richard Bryant
Timucuan Preserve
13165 Mt. Pleasant Road
Jacksonville, FL 32225

Dear Mr. Bryant:

I am pleased that you thought to include the City of Jacksonville's (COJ) Department of Parks, Recreation, Entertainment and Conservation: Preservation Project Division for comment regarding this proposed project. As a formal stakeholder in the Timucuan Trails State and National Parks partnership the COJ Preservation Project supports the National Park Service's decision to prepare a new environmental assessment for the Cedar Point property.

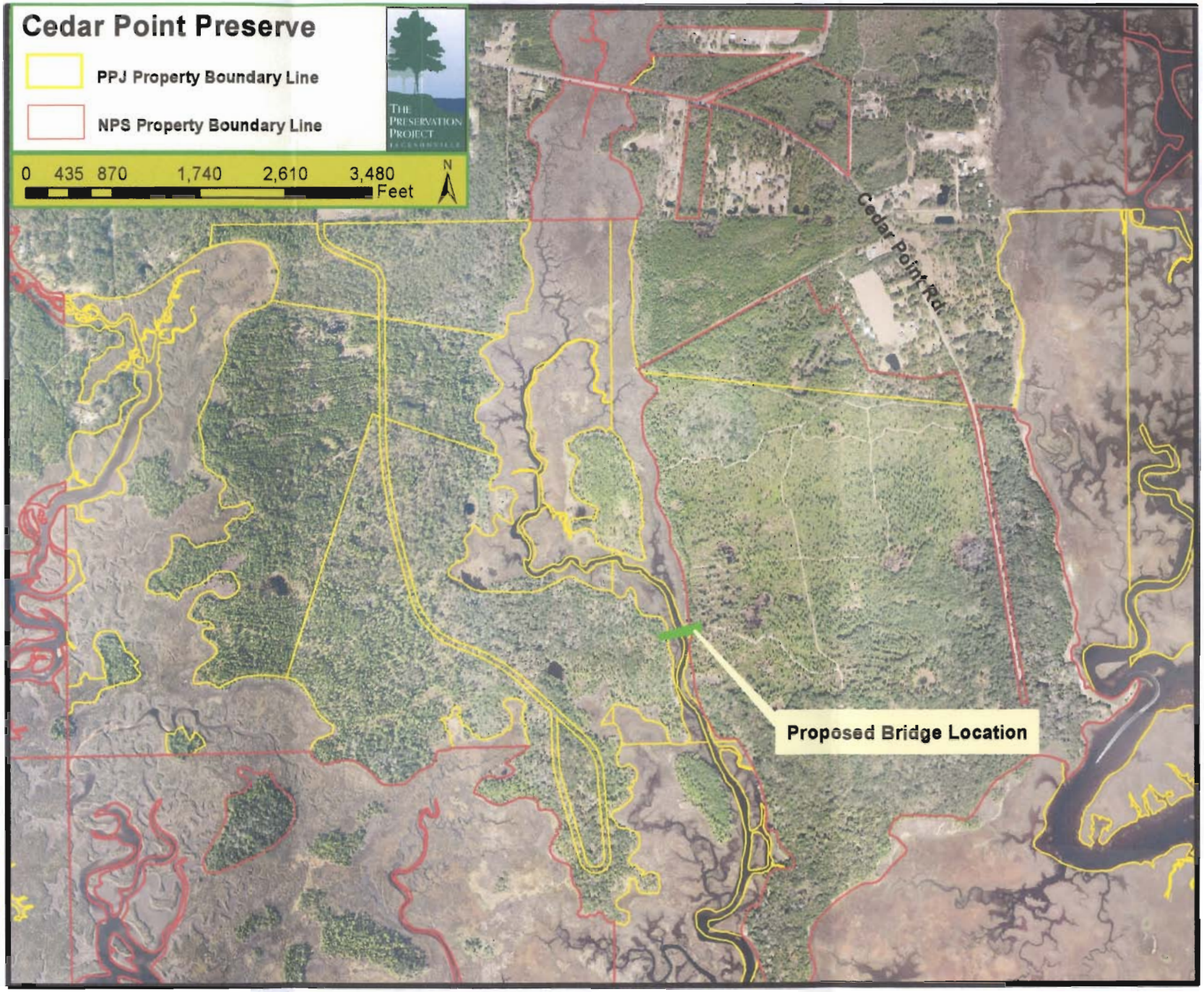
The activities being proposed by your Development Concept Plan are consistent with recreation and preservation goals held by the COJ Preservation Project, which manages 450 acres of property adjacent to the NPS Cedar Point parcel (see attached map). The conceptual objective is to link the two properties for hiking, biking and wildlife viewing via a proposed pedestrian bridge across Pumpkin Hill Créek.

While the COJ does not object to any of the recreational activities being proposed for this project, we do feel that a new environmental assessment is merited considering recent archeological investigations. The area within the Timucuan Ecological and Historical Preserve as well as adjacent COJ and state owned properties has already proven rich in significant cultural resources. It is the COJ Preservation Project's view that future development of recreational visitor services and facilities should not interfere with the preservation of any prehistoric or historical resources.

Once again, I appreciate the opportunity to comment on this project. Please contact our office should you need further assistance.

Sincerely,

Nathan Rezeau
Interim Chief, Preservation Project Division
NRezeau@coj.net


Cedar Point Preserve
PPJ Property Boundary Line
NPS Property Boundary Line
THE PRESERVATION PROJECT
0 435 870 1,740 2,610 3,480
Feet
N
Cedar Point Rd.
Proposed Bridge Location

OFFICE OF THE CITY COUNCIL

LYNETTE SELF
COUNCILWOMAN, DISTRICT TWO
OFFICE (904) 630-1392
FAX (904) 630-2906
E-MAIL: LSELF@coj.net

117 WEST DUVAL STREET
SUITE 425
JACKSONVILLE, FLORIDA
32202

February 22, 2007

Mr. Richard Bryant
Timucuan Preserve
13165 Mt. Pleasant Road
Jacksonville, Florida 32225

RE: VISITOR SERVICES CENTER AT CEDAR POINT

Dear Mr. Bryant:

Thank you for your letter advising me of the environmental assessment the National Park Service, Timucuan Ecological and Historic Preserve is preparing to conduct on lands for the proposed development of visitor service facilities at Cedar Point.

I am very much in support of the development of the visitor service center at Cedar Point on Black Hammock Island. This is a wonderful opportunity to open public lands for Jacksonville's citizens and visitors to enjoy the unspoiled beauty of our natural marshes and tributaries. Our schools will be able to take children on field trips to study our natural resources and sports enthusiasts will enjoy hiking, bicycling, kayaks, canoes and etc. in this beautiful environment.

I cannot imagine a better use of this natural park land. Please be assured that I fully support your efforts.

Sincerely,

Lynette Self

Lynette Self
Council Member, District 2

LS/sgw ✓

"Moehring, Margo"
<MargoM@coj.net>
02/20/2007 12:31 PM
EST

To: <richard_bryant@nps.gov>
cc: "Boree, Kelley" <Kboree@coj.net>, "Reed, Kristen" <KReed@coj.net>, "Thoburn, Brad" <BThoburn@coj.net>, "Saunders, Randi" <RandiS@coj.net>, "McDowell, Doug" <DougMc@coj.net>
Subject: NPS-Cedar Point-Comp Plan consistency review, L7617 (TIMU-RM)

Dear Mr. Bryant,

Attached is a list of policies from the City of Jacksonville 2010 Comprehensive which support the proposed development of visitor service facilities at Cedar Point. Please let us know if we may be of further assistance.

Best regards,

Margo Moehring

Chief, Strategic Planning

Department of Planning and Development

City of Jacksonville

630 7067

<<Timucuan Ecological and Historic Preserve-Cedar Point NPS.doc>>

 Timucuan Ecological and Historic Preserve-Cedar Point NPS.doc

The City of Jacksonville Planning and Development Department has reviewed the proposed development of visitor service facilities at Cedar Point and finds that is it consistent with the following Goals, Objectives and Policies of the Conservation/Coastal Management Element, the Recreation and Open Space Element and the Future Land Use Element of the City's 2010 Comprehensive Plan:

CCME Policy 7.3.7 All public lands within the Coastal High Hazard Areas (CHHA) shall be designated for conservation purposes consistent with the Future Land Use Element's Conservation land use classification. A majority of the site is located in the CHHA. *According to the Future Land Use Element, the Conservation category permits regional, state or national forests, parks, sanctuaries, preserves and Special Management Areas and is limited to open space, resource and recreation uses.*

ROS Obj. 1.3 The City shall increase its pedestrian path and greenway and trail system and develop strategies to ensure that these systems are included in new park development.

ROS Policy 1.3.2 The City, through the Preservation Project Jacksonville, shall develop strategies for the acquisition or lease of linear parks for pedestrian paths and greenway and trail systems. These facilities shall be developed as a network connecting residential areas, schools and parks where land is available through purchase or easement.

ROS Obj. 4.2 The City shall increase the number of public boating and fishing facilities along the St. Johns River and its tributaries.

ROS Obj. 1.2 The City shall ensure that recreation facilities are added to keep up with new growth and development.

ROS Policy 1.1.1 The City shall maintain the following Level of Service (LOS) standards for the provision of parks in the City as shown in the Capital Improvements Element of this comprehensive plan:
The City shall provide 1.87 acres per one thousand population of "Active" parks in the Urban area.
The City shall provide 0.50 acres per one thousand population of "Active/Passive" parks in the Suburban and Rural areas.
City shall provide 1.51 acres per thousand population of "Active/Passive" parks by Planning District.

By 2000, the City shall provide 1.60 acres per thousand population of "Active/Passive" parks by Planning District.
By 2005, the City shall provide 1.73 acres per thousand population of "Active/Passive" parks by Planning District.
By 2010, the City shall provide 1.93 acres per thousand population of "Active/Passive" parks by Planning District.
By 2010, the City shall provide 2.50 acres per thousand population of "Regional" parks Citywide.
However, in no event shall existing park and open space acreage be reduced in accordance with Section 122.48 of the Ordinance Code.

FLUE Policy 1.5.6 Use public lands for appropriate multiple uses, such as parks, stormwater management systems, and preservation of natural habitats.

FLUE Policy 2.7.2 Develop and implement open space/public access plans through the Parks, Recreation, and Entertainment Department to provide public access to the waterfront through a coordinated, functional system of public and private easements, rights-of-way, and open space.

FLUE Obj. 2.8 Maintain and/or improve existing recreation lands and encourage the dedication of properties for recreational uses through appropriate fiscal and regulatory incentives.

FLUE Policy 2.8.1 The City shall improve coordination with all levels of government, non-profit providers and private landholders to increase available parkland facilities, through negotiations and joint participation agreements for acquisition and management or recreational land.

Florida Department of
Environmental Protection

Marjory Stoneman Douglas Building
3900 Commonwealth Boulevard
Tallahassee, Florida 32399-3000

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

March 29, 2007

Mr. Richard Bryant
Timucuan Preserve
National Park Service
13165 Mt. Pleasant Road
Jacksonville, FL 32225

RE: National Park Service - Scoping Notice - Environmental Assessment for Visitor Service Facilities at Cedar Point, Timucuan Ecological and Historic Preserve - Jacksonville, Duval County, Florida
SAI # FL200702063047C

Dear Mr. Bryant:

The Florida State Clearinghouse, pursuant to Presidential Executive Order 12372, Gubernatorial Executive Order 95-359, the Coastal Zone Management Act, 16 U.S.C. §§ 1451-1464, as amended, and the National Environmental Policy Act, 42 U.S.C. §§ 4321, 4331-4335, 4341-4347, as amended, has coordinated a review of the subject scoping notice.

The Florida Department of Environmental Protection (DEP) states that the Timucuan Ecological and Historic Preserve's Cedar Point property is located within the boundaries of the Nassau River-St. Johns River Marshes Aquatic Preserve. The aquatic preserve is managed by the DEP Office of Coastal and Aquatic Managed Areas (CAMA) and was designated on November 24, 1969 for the "primary purpose of preserving the biological resources of the Nassau Sound area marshes and associated waters." The CAMA's Northeast Florida Aquatic Preserves Program is charged with ensuring that designated waters be managed in the public interest so as not to negatively impact water quality or the quantity and quality of existing fish and wildlife habitat. Staff notes that, though the proposed project would create a public benefit by providing additional recreational resources and improved access, a thorough environmental assessment should be conducted to assess potential impacts to ambient water quality. Please refer to the enclosed DEP CAMA memorandum for additional comments and recommendations.

The DEP Northeast District office in Jacksonville advises that an Environmental Resource Permit will be required for stormwater management and any wetland impacts associated with construction of the proposed visitor's facility. The DEP also notes that on-site water and wastewater treatment will likely be needed, since central sewer and water services may not be available nearby. As such, the DEP District recommends that the applicant

install performance-based septic treatment systems or no-discharge systems, rather than conventional septic systems. The effluent of conventional septic systems may contain pathogens, as well as excessive nutrients, which could negatively impact groundwater, watersheds, and area water bodies. Performance-Based Treatment Systems (PBTS) achieve levels of treatment far above what conventional septic systems are capable of providing. Florida law establishes design and maintenance standards for PBTS and requires inspections at least annually by the Florida Department of Health (See Part IV of Rule 64E-6, *Florida Administrative Code*, and Section 381.0065, *Florida Statutes*).

The Florida Department of State (DOS) concurs with the National Park Service that there are a number of historic resources, many of them discovered in 1997, in the Timucuan Ecological and Historic Preserve. Staff looks forward to reviewing the draft environmental assessment and coordinating with the National Park Service on ways to preserve and protect these irreplaceable resources. Please refer to the enclosed DOS letter.

Based on the information contained in the scoping notice and the enclosed state agency comments, the state has determined that, at this stage, the proposed activities are consistent with the Florida Coastal Management Program (FCMP). The federal agency must, however, address the concerns identified by our reviewing agencies prior to project implementation. The state's continued concurrence with the project will be based, in part, on the adequate resolution of any issues identified during this and subsequent reviews. The state's final concurrence of the project's consistency with the FCMP will be determined during the environmental permitting stage.

Thank you for the opportunity to review the proposed project. Should you have any questions regarding this letter, please contact Ms. Suzanne E. Ray at (850) 245-2172.

Sincerely,

Sally B. Mann

Sally B. Mann, Director
Office of Intergovernmental Programs

SBM/ser
Enclosures

cc: Jennifer Auger, DEP, Northeast District
Ellen McCarron, DEP, CAMA
Nicole Robinson, DEP, CAMA NEFAP
Laura Kammerer, DOS

Project Information	
Project:	FL200702063047C
Comments Due:	03/08/2007
Letter Due:	03/30/2007
Description:	NATIONAL PARK SERVICE - SCOPING NOTICE - ENVIRONMENTAL ASSESSMENT FOR VISITOR SERVICE FACILITIES AT CEDAR POINT, TIMUCUAN ECOLOGICAL AND HISTORIC PRESERVE - JACKSONVILLE, DUVAL COUNTY, FLORIDA.
Keywords:	NPS - CEDAR POINT VISITOR SERVICE FACILITIES AT TIMUCUAN EHP - DUVAL CO.
CFDA #:	15.910

Agency Comments:

ENVIRONMENTAL PROTECTION - FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
The DEP states that the Timucuan Ecological and Historic Preserve's Cedar Point property is located within the boundaries of the Nassau River-St. Johns River Marshes Aquatic Preserve, managed by the DEP Office of Coastal and Aquatic Managed Areas (CAMA). CAMA staff notes that, though the proposed project would create a public benefit by providing additional recreational resources and improved access, a thorough environmental assessment must be conducted to assess potential impacts to ambient water quality. The DEP Northeast District office in Jacksonville advises that an Environmental Resource Permit will be required for wetland impacts caused by construction of the proposed visitor's facility. DEP District staff also notes that on-site water and wastewater treatment will likely be needed, since central sewer and water services may not be available nearby. As such, the DEP recommends that the applicant install performance-based septic treatment systems or no-discharge systems, rather than conventional septic systems. Additional CAMA comments, concerns and recommendations are enclosed.
FISH and WILDLIFE COMMISSION - FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION
No Comments Received
STATE - FLORIDA DEPARTMENT OF STATE
The DOS concurs with the National Park Service that there are a number of historic resources, many of them discovered in 1997, in the Timucuan Ecological and Historic Preserve. Staff looks forward to reviewing the Draft EA and coordinating with the National Park Service on ways to preserve and protect these irreplaceable resources.
ST. JOHNS RIVER WMD - ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
No Comments.
NE FLORIDA RPC - NORTHEAST FLORIDA REGIONAL PLANNING COUNCIL
No Comments
DUVAL - DUVAL COUNTY
No Comments

For more information please contact the Clearinghouse Office at:

3900 COMMONWEALTH BOULEVARD MS-47
TALLAHASSEE, FLORIDA 32399-3000
TELEPHONE: (850) 245-2161
FAX: (850) 245-2190

Visit the Clearinghouse Home Page to query other projects.

Memorandum

TO: Florida State Clearinghouse

THROUGH: Ellen McCarron, Assistant Director
Office of Coastal and Aquatic Managed Areas (CAMA)

THROUGH: Dr. Michael Shirley, Environmental Administrator
CAMA East Coast Region

FROM: Nicole Robinson, Manager
CAMA Northeast Florida Aquatic Preserves

DATE: March 21, 2007

SUBJECT: Consistency Review of National Park Service - Scoping Notice - Environmental Assessment for Visitor Service Facilities at Cedar Point, Timucuan Ecological and Historic Preserve - Jacksonville, Duval County, Florida
SAI # FL200702063047C

Thank you for the opportunity to provide comments to the State of Florida's Coastal Management Program (FCMP) on the National Park Service's scoping notice.

The Timucuan Ecological and Historic Preserve's Cedar Point property is located within the boundaries of the Nassau River-St. Johns River Marshes Aquatic Preserve. The preserve is managed by the Florida Department of Environmental Protection's (DEP) Office of Coastal and Aquatic Managed Areas (CAMA) and is included in the Florida Coastal Management Program in Chapter 258, Florida Statutes (F.S.). The Nassau River-St. Johns River Marshes Aquatic Preserve was designated on November 24, 1969 for the "primary purpose of preserving the biological resources of the Nassau Sound area marshes and associated waters." All waters within aquatic preserves are designated under Section 62-302.700, Florida Administrative Code (F.A.C.), as Outstanding Florida Waters (OFW). Under the OFW designation, the waters of the Aquatic Preserve are to be "afforded the highest protection" (Section 62-302.700(1), F.A.C.).

CAMA/Northeast Florida Aquatic Preserves is charged with ensuring that designated waters be managed in the public interest so as not to negatively impact water quality or the quantity and quality of existing fish and wildlife habitat. We feel that the proposed NPS project would create a public benefit by providing additional recreational resources and improved access. However, a thorough environmental assessment must be conducted to assess potential impacts to ambient water quality. The assessment should fully address all

components of the project that could result in water quality degradation including, but not limited to:

1. Amount of impervious surface.
2. Design and implementation of the stormwater management system.
3. Design and implementation of the waste management system.
4. Use of vegetated buffers and setbacks.

If we can be of any assistance during the environmental assessment period, please feel free to contact us. We look forward to working together with the NPS Timucuan Ecological and Historic Preserve towards a successful project.

Nicole Robinson, Manager
CAMA Northeast Florida Aquatic Preserves
13802 Pumpkin Hill Road
Jacksonville, FL 32226
(904) 696-5944

FLORIDA STATE CLEARINGHOUSE
RPC INTERGOVERNMENTAL COORDINATION AND RESPONSE SHEET

SAI#: FL200702063047C DATE: 2/6/2007
COMMENTS DUE TO CLEARINGHOUSE: 3/8/2007

CFDA#: 15.910 COUNTY: **DUVAL** CITY: JACKSONVILLE

☐ FEDERAL ASSISTANCE ☑ DIRECT FEDERAL ACTIVITY ☐ FEDERAL LICENSE OR PERMIT ☐ OCS

PROJECT DESCRIPTION
NATIONAL PARK SERVICE - SCOPING NOTICE - ENVIRONMENTAL ASSESSMENT FOR VISITOR SERVICE FACILITIES AT CEDAR POINT, TIMUCUAN ECOLOGICAL AND HISTORIC PRESERVE - JACKSONVILLE, DUVAL COUNTY, FLORIDA.

ROUTING: **RPC**

X NE FLORIDA RPC

FEB 12 2007

PLEASE CHECK ALL THE LOCAL GOVERNMENTS BELOW FROM WHICH COMMENTS HAVE BEEN RECEIVED; ALL COMMENTS RECEIVED SHOULD BE INCLUDED IN THE RPC'S CLEARINGHOUSE RESPONSE PACKAGE. IF NO COMMENTS WERE RECEIVED, PLEASE CHECK "NO COMMENT" BOX AND RETURN TO CLEARINGHOUSE.

COMMENTS DUE TO RPC: 3/1/2007

___ DUVAL

NO COMMENTS: ✓
(IF THE RPC DOES NOT RECEIVE COMMENTS BY THE DEADLINE DATE, THE RPC SHOULD CONTACT THE LOCAL GOVERNMENT TO DETERMINE THE STATUS OF THE PROJECT REVIEW PRIOR TO FORWARDING THE RESPONSE PACKAGE TO THE CLEARINGHOUSE.)

NOTES:

ALL CONCERNS OR COMMENTS REGARDING THE ATTACHED PROJECT (INCLUDING ANY RPC COMMENTS) SHOULD BE SENT IN WRITING BY THE DUE DATE TO THE CLEARINGHOUSE. PLEASE ATTACH THIS RESPONSE FORM AND REFER TO THE SAI # IN ALL CORRESPONDENCE.

IF YOU HAVE ANY QUESTIONS REGARDING THE ATTACHED PROJECT, PLEASE CONTACT THE STATE CLEARINGHOUSE AT (850) 245-2161.

APPENDIX B

CULTURAL RESOURCE DOCUMENTATION

FEB - 6 2004

FLORIDA DEPARTMENT OF STATE
Glenda E. Hood
Secretary of State
DIVISION OF HISTORICAL RESOURCES

Ms. Barbara Goodman
United States Department of the Interior
National Park Service
Timucuan Ecological and Historic Preserve
13165 Mt. Pleasant Road
Jacksonville, Florida 32225

September 17, 2003

Re: DHR Project File No. 2003-8033 / Received by DHR: September 12, 2003 SAC 9/18/03
An Archaeological Survey *and Assessment of the Proposed Cedar Point Prescribed Fire Project Duval County, Florida*

Dear Ms. Goodman:

Our office has received and reviewed the above referenced project in accordance with Section 106 of the *National Historic Preservation Act of 1966* (Public Law 89-665), as amended in 1992, and *36 C.F.R., Part 800: Protection of Historic Properties*. The State Historic Preservation Officer is to advise and assist federal agencies when identifying historic properties listed or eligible for listing in the *National Register of Historic Places*, assessing effects upon them, and considering alternatives to avoid or minimize adverse effects.

Six previously recorded archaeological sites (8DU7499-8DU7504) were identified within the project area. Due to the highly disturbed status of the sites, as well as the relatively sparse nature of the artifact assemblage, sites 8DU7499-8DU7504 do not appear to meet the criteria for listing in the *National Register of Historic Places*. It is the opinion of the National Park Service that the proposed prescribed fire project will have no effect on properties of historical or archaeological value. Based on the information provided, this agency concurs with this determination and finds the submitted report complete and sufficient in accordance with Chapter 1A-46, *Florida Administrative Code*.

If you have any questions concerning our comments, please contact Mini Sharma, Historic Sites Specialist, at mtsharma@mail.dos.state.fl.us or (850) 245-6333. Your interest in protecting Florida's historic properties is appreciated.

Sincerely,

Janet Snyder Matthews, Ph.D., Director, and
State Historic Preservation Officer

500 S. Bronough Street • Tallahassee, FL 32399-0250 • http://www.flheritage.com

☐ Director's Office (850) 245-6300 • FAX: 245-6435
☐ Archaeological Research (850) 245-6444 • FAX: 245-6436
☑ Historic Preservation (850) 245-6333 • FAX: 245-6437
☐ Historical Museums (850) 245-6400 • FAX: 245-6433
☐ Palm Beach Regional Office (561) 279-1475 • FAX: 279-1476
☐ St. Augustine Regional Office (904) 825-5045 • FAX: 825-5044
☐ Tampa Regional Office (813) 272-3843 • FAX: 272-2340

AMENDMENT

To the

MEMORANDUM OF AGREEMENT

Between

THE NATIONAL PARK SERVICE, TIMUCUAN
ECOLOGICAL AND HISTORIC PRESERVE

THE FLORIDA STATE HISTORIC PRESERVATION OFFICER
DEPARTMENT OF STATE
OFFICE OF CULTURAL AND HISTORIC PROGRAMS
And
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION

PURSUANT TO 36 CFR 800.6(A)

WHEREAS, the NATIONAL PARK SERVICE, TIMUCUAN ECOLOGICAL AND HISTORIC PRESERVE (NPS/TIMU) in consultation with the FLORIDA STATE HISTORIC PRESERVATION OFFICER (FLSHPO) has determined archaeological sites 8DU64 and 8DU81 are eligible for listing on the National Register of Historic Places: and

WHEREAS, NPS/TIMU has determined the reconstruction of a boat ramp at the conjoined archaeological sites (8DU64 and 8DU81) will have an adverse effect on their current eligibility status to the National Register of Historic Places, and has consulted with the FLSHPO pursuant to 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and

WHEREAS, NPS/TIMU *has determined the construction of a parking area adjoining the boat ramp at the conjoined archaeological sites (8DU63, 8DU64, 8DU81 and 8DU82) will have an adverse effect on their current eligibility status to the National Register of Historic Places, and has consulted with the FLSHPO pursuant to 36 CFR 800, regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470f); and*

WHEREAS, all interested parties have been consulted in this process through the review of the General Management Plan for Timucuan Ecological and Historic Preserve, the Timucuan Ecological and Historic Preserve Land Protection Plan, the Cedar Point

Development Concept Plan and Environmental Assessment, the Determination of Eligibility, and Section 106 documentation; and

WHEREAS, the background information provided in Appendix A is applicable specifically to this Memorandum of Agreement;

THEREFORE, NPS/TIMU and the FLSHPO, in concurrence with the Advisory Council on Historic Preservation, agree data recovery will be undertaken at sites 8DU64 and 8DU81 in accordance with the following stipulations, in order to mitigate the effect of the proposed undertaking on these archaeological sites.

STIPULATIONS

NPS/TIMU will ensure the following stipulations are completed:

1. NPS/TIMU will ensure that data recovery at the properties will be conducted in accordance with NPS policies and State of Florida guidelines (See Appendix A in previous MOA package). This documentation will be submitted to the FLSHPO for review and approval in accordance with 36 CFR 800. All documentation of the data recovery project will be archived at the Curatorial Facility at Park Headquarters, Jacksonville, Florida and at the FLSHPO, Tallahassee, Florida. Appropriate records of the project will be made available to researchers or archaeological sites.

2. NPS/TIMU will provide FLSHPO a thirty day comment period for Stipulation 1. Should the FLSHPO provide no written or verbal comments within that period, NPS/TIMU will assume concurrence with the documentation.

3. There is potential at the sites to encounter human remains. Should they be encountered, NPS/TIMU will immediately shut down all data recovery operations and begin consultation procedures in accordance with the Native American Graves and Repatriation Act as directed by NPS policy.

4. Should the FLSHPO object to any actions pursuant to this agreement, the NPS/TIMU will consult with the FLSHPO to resolve the objection. If the NPS/TIMU determines that the objection cannot be resolved, the NPS/TIMU will request further comments from the Council pursuant to 36 CFR 800.6(b). The Council will provide within 30 days of receipt of all pertinent documentation recommendations to the NPS/TIMU to be taken into account in reaching a final decision regarding the dispute.

5. Any party to the agreement may request that it be amended, whereupon the parties will consult in accordance with 36 CFR 800.13 to consider such amendment.

Execution of the Memorandum of Agreement by the National Park Service, Timucuan Ecological and Historic Preserve and the Florida State Historic Preservation Officer, with subsequent concurrence by the Advisory Council on Historic Preservation, certifies that the National Park Service, Timucuan Ecological and Historic Preserve had taken into account the effects of the boat ramp reconstruction and parking area construction at Cedar Point archaeological sites 8DU63, 8DU64, 8DU81 and 8DU82.

MEMORANDUM OF AGREEMENT
CEDAR POINT ARCHAEOLOGICAL SITES
8DU64 AND 8DU81

NATIONAL PARK SERVICE/TIMUCUAN EHP

By: Barbara Goodman Date: 2/3/06
Barbara Goodman

FLORIDA STATE HISTORIC PRESERVATION OFFICER

By: Frederick P. Gaske Date: 3/10/06
Frederick Gaske, ~~Acting~~ Director, and
~~Deputy~~ State Historic Preservation Officer